The Gemstone Book

CIBJO Coloured Stone Commission 22-12-2022





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Foreword

CIBJO is the French acronym for the Confédération Internationale de la Bijouterie, Joaillerie, Orfèvrerie, des Diamants, Perles et Pierres, which translates as the International Confederation of Jewellery, Silverware, Diamonds, Pearls and Stones (normally shortened to the International Jewellery Confederation). Founded in 1926 as BIBOAH, a European organisation whose mission was to represent and advance the interests of the jewellery trade in Europe, it was reorganised in 1961 and renamed CIBJO, in 2009 it was once again reorganised and officially named "CIBJO, The World Jewellery Confederation". Today CIBJO, which is domiciled in Switzerland, is a non-profit confederation of national and international trade associations including commercial organisations involved in the jewellery supply chain. It now has members from countries representing all five continents of the world. CIBJO printed its first deliberations on terminology and trade practices in 1968.

It is the task of CIBJO to record the accepted trade practices and nomenclature for the industry throughout the world. The records of the trade practices complement existing fair trade legislation of a nation or in the absence of relevant national laws they can be considered as trading standards. In countries where laws or norms exist, which conflict with the laws, norms or trade practices in other countries, CIBJO will support the national trade organisations to prevent trade barriers developing. The purpose of CIBJO is to encourage harmonisation, promote international co-operation within the jewellery industry, consider issues which are of concern to the trade worldwide and to communicate proactively with members. Foremost amongst these the aim is to protect consumer confidence in the industry. CIBJO pursues all of these objectives through informed deliberation and by reaching decisions in accordance with its Statutes. CIBJO relies upon the initiative of its members to support and implement its standards, and to protect the trust of the public in the industry.

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

The work of CIBJO is accomplished through Committees, Commissions and Sectors. Committees and Commissions consider standards for use in the jewellery supply chain. Sectors represent levels of trade in the jewellery industry. Sectors and commissions advise the Executive Committee on current trade practices and issues that affect the jewellery industry.

Three independent sectors exist within the confederation:

Sector A - The Products Sector

Sector B - The Supply Chain Sector

Sector C - The Service Sector

The Executive Committee may appoint Commissions that consider detailed issues. At present these are:

Coloured Stone

Coral

Diamond

Ethics

Gemmological

Marketing & Education

Pearl

Precious Metals

Responsible Sourcing

The Commissions for Coral, Diamonds, Gemstones, Pearls and Precious Metals have collated the guidelines, which present the accepted trade practices for applying descriptions to these materials. It is in the best interest of all those concerned to be aware of them.

The Sectors and Commissions will propose changes in the standards, also known as the Blue Books, to the Executive Committee. After review the Executive Committee will submit the accepted proposals for adoption to the Board of Directors and if approved they will notify the assembly of delegates of the changes at the annual congress. Furthermore, it is our mutual responsibility to support these recommendations, which concern all professional people connected with diamonds, gemstones, pearls and precious metals. CIBJO Standards are subject to government regulations in the respective jurisdictions of CIBJO members.

The national umbrella organisation for each country represents, in principle, all the national trade organisations involved in the sectors mentioned above. This democratic structure, which has contributed to CIBJO's world-wide recognition also includes international trade and commercial organisations, it provides an international forum for the trade to collectively draw attention to issues and implement resulting decisions.

CIBJO Secretariat:

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Background

CIBJO's status on the Economic and Social Council of the United Nations (ECOSOC) enables it to represent the jewellery industry and present its strategy and objectives in support of the UN development goals. CIBJO's strategy in this respect is multi-layered. It serves to protect its constituents from factors that threaten the confidence of consumers in the jewellery industry, as well as factors that threaten the confidence of consumers in the jewellery product itself, and at the same time promote the jewellery industry, which creates sustainable economic and social opportunity in the countries and regions in which it is active.

The harmonisation of industry standards is a critical element of CIBJO's mission and stands at the heart of its effort to protect the confidence of consumers in the jewellery product itself. To advance the goal of universal standards and terminology in the jewellery industry, CIBJO developed its "Blue Book" system, which involves a definitive set of standards for the grading, methodology and nomenclature of diamonds, coloured gemstones, pearls and other organic materials, precious metals and gemmological laboratories.

Introduction

This CIBJO Gemstone book is designed to assist and guide all those involved with gemstones-and artificial products, by recording the accepted trade practices and nomenclature for the industry throughout the world.

The standard/rules are non-judgmental and the definitions and clauses contained herein are designed to prevent unfair or deceptive trade practices, they are formatted and worded only to ensure that each gemstone and artificial product bought or sold is done with clarity and honesty. The stability of the market place depends upon the use of the proper nomenclature and the declaration of all known facts that ensure a fully informed purchase or sale, throughout the distribution pipeline all the way to the final consumer.

The following definitions apply in understanding how to implement CIBJO Blue Books and some of its normative references, e.g. when applicable ISO standards.

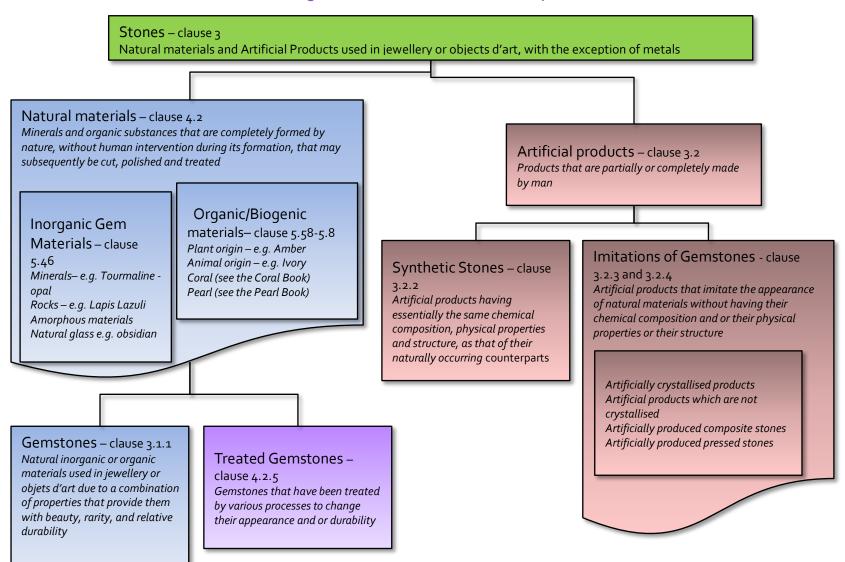
- "shall" indicates a requirement;
- "should" indicates a recommendation;
- "may" is used to indicate that something is permitted;
- "can" is used to indicate that something is possible.

The Scope (1) of the book is set out, as are the Normative References. The Terms and Definitions (5) are expansive and are extensively cross referenced throughout the Classifications of Materials (3), Normative Clauses (4), Annex and Tables (8). It is important that the reader refers to the relevant Terms and Definitions when consulting each Normative Clause.

The CIBJO Coloured Gemstone Commission

November, 2022

Gemstone, organic materials and artificial product chart



GEMSTONES AND ARTIFICIAL PRODUCTS — TERMINOLOGY AND CLASSIFICATION

1. Scope

The terminology and classification of gemstones (5.38) and artificial products (5.3) are established with reference to commercial usage, in conformity with the classifications and practices of the gemstone, artificial product and jewellery trades. It shall be used by all traders participating as members of CIBJO member organisations within all member nations.

NOTE — CIBJO recognises that its standards are subject to government regulations in the respective jurisdiction of CIBJO members. In the event there are no government regulations in a member's country, the local Industry Rule will take precedence as long as it is stricter.

2. Normative references

The following references are useful for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced documents (including any amendments) applies.

The Coral Book, CIBJO, International Confederation of Jewellery, Silverware, Diamonds, Pearls and Stones), the World Jewellery Confederation, Viale Berengario, 19, 20149 Milano, Italy. <u>cibjo@cibjo.org</u>

The Diamond Book, CIBJO, International Confederation of Jewellery, Silverware, Diamonds, Pearls and Stones), the World Jewellery Confederation, Viale Berengario, 19, 20149 Milano, Italy. <u>cibjo@cibjo.org.</u>

The Gemmological Laboratory Book, CIBJO, International Confederation of Jewellery, Silverware, Diamonds, Pearls and Stones), the World Jewellery Confederation, Viale Berengario, 19, 20149 Milano, Italy. <u>cibjo@cibjo.org.</u>

The Pearl Book, CIBJO (International Confederation of Jewellery, Silverware, Diamonds, Pearls and Stones), the World Jewellery Confederation, Viale Berengario, 19, 20149 Milano, Italy. <u>cibjo@cibjo.org.</u>

The Precious Metal Book, CIBJO (International Confederation of Jewellery, Silverware, Diamonds, Pearls and Stones), the World Jewellery Confederation, Viale Berengario, 19, 20149 Milano, Italy. <u>cibjo@cibjo.org.</u>

The Responsible Sourcing Book, CIBJO (International Confederation of Jewellery, Silverware, Diamonds, Pearls and Stones), the World Jewellery Confederation, Viale Berengario 19, 20149, Milano, Italy. <u>cibjo@cibjo.org</u>

Convention on International Trade in Endangered Species of Wild Fauna and Flora, Appendices I, II and III valid from 22 May 2009. International Environment House • Chemin des Anémones • CH-1219 Châtelaine, Geneva, Switzerland, <u>info@cites.org</u>

The Definition of a Mineral, E.H. Nickel, Canadian Mineralogist, Vol. 33, No. 3, pp. 689-690, (1995)

3. Classification of materials

The jewellery industry recognises two categories of material: natural materials, clause 3.1 and artificial products, clause 3.2.

3.1. Natural materials

Only materials that have been formed completely by nature without human interference/intervention qualify as "natural" within this standard.

3.1.1. Gemstones

Gemstones (5.38) encompass:

- Minerals (5.52); e.g. aquamarine, diamond, emerald, garnet, opal, sapphire.
- Natural glasses (5.40); e.g., obsidian.
- Rocks (5.71); e.g., lapis lazuli, opal with matrix and turquoise with azurite and malachite.
- Organic gem materials (5.58); e.g., amber and jet
- Biogenic gem materials (5.8) e.g., pearl, coral and tortoise shell.

See clause 8 annex C for an alphabetic listing of gemstone (5.38) species, varieties and their commercial names.

NOTE – For specific diamond, pearl and coral, trade rules and nomenclature refer to CIBJO's normative references Clause 2.

3.1.2. Treated gemstones

Treated gemstones encompass all gemstones/materials (3.1.1) that have been subjected to a treatment (5.83). See clause 4.2.5

3.2. Artificial products

Products which include a variety of materials that are partially or completely made by man, see clause 5.3.

3.2.1. Artificial products with gemstone components

These are composite stones (5.18) examples of which include garnet topped doublets, emerald on glass doublets, natural sapphire on synthetic ruby doublets as well as ruby-glass composites, pressed amber and emerald on emerald doublets. See clause 4.3.2.

3.2.2. Synthetic stones

Synthetic stones encompass those materials that are defined in clause 5.80; examples which are commercially available include synthetic ruby, synthetic sapphire, synthetic emerald, and synthetic amethyst. See clause 4.3.3.

3.2.3. Artificially crystallised products with no known natural counterpart

Artificially crystallised products with no known natural counterpart include, e.g., yttrium aluminium garnet (YAG) and gadolinium gallium garnet (GGG). See clause 5.4

3.2.4. Artificial uncrystallised products

Artificial uncrystallised products include man made glass (5.40), lead glass (5.50), plastic and products of various compositions, such as pressed materials (e.g. pressed turquoise) that are used to imitate the appearance of gemstones and organic gem materials. See clause 4.3.5

4. Normative clauses

4.1.General clauses

4.1.1. Description and display

All materials classified in clause 3 shall be named, described and displayed in accordance with the definitions, annexes and the terminology set out in all the clauses herein. This applies to all publications, advertisements (5.2), communications addressed to consumers prior to or during a final sale, as well as to all commercial documents (5.16) (e.g., offers, labels, memos, delivery notes and invoices) and to appraisals, identification reports, certificates, etc.

4.1.1.1. Disclosure

Full disclosure (5.25) by the vendor to the purchaser of all material information (5.51) shall take place whether or not the information is specifically requested and regardless of the effect on the value of the product being presented or sold.

4.1.1.1.1. Verbal Disclosure

Full verbal disclosure (5.25) shall take place using clear and understandable language prior to the completion of a sale.

4.1.1.1.2. Written Disclosure

Full written disclosure (5.25) shall be conspicuously included on all commercial documents (5.16) in clear and plain language so as to be readily understandable to the purchaser. The disclosure shall immediately precede the description of the materials listed in clause 3 and shall be equally conspicuous to that description.

4.1.1.2. Terms designed to disguise

It is contrary to the purposes of this document to make any misleading or deceptive statement, representation or illustration relating to origin, formation, production, condition or quality that does not conform in all respects with any and all the clauses contained herein.

The terms "natural treated gemstone" or "treated natural gemstone" shall not be used because they can be misleading.

Example: "natural treated ruby", "treated natural amber", etc.

4.1.1.3. Display

In cases when gemstones are displayed, or jewellery is decorated, with treated gemstones (5.82), composite stones (5.18) and artificial stones (5.4), an easily noticeable and legible label adjoining each item shall clearly indicate the precise nature of the objects being shown in accordance with the clauses herein, also see clause 4.2.5.

4.1.1.4. Name of cuts

The name of cuts shall only be used in conjunction with the correct name of the material from which it is fashioned.

Examples - « brilliant-cut sapphire », « rose-cut amber », « marquise-shape treated topaz », « baguette-shape YAG (artificial product) », « emerald-cut synthetic ruby », « pear-shape garnet / glass doublet », « cabochon - pressed amber », « shell cameo ».

NOTE — A round brilliant-cut diamond may be described as a "brilliant" without any additional description of the material. See the CIBJO Diamond Blue Book.

4.1.1.5. Chatoyancy

Stones displaying chatoyancy (5.13) shall be described by their correct name with the prefix/suffix "cat's-eye" or the prefix "chatoyant".

Examples - « Cat's-eye tourmaline », « Tourmaline cat's-eye », « Chatoyant tourmaline ».

4.1.1.6. Asterism

Stones displaying asterism (5.6) shall be described by their correct name with the prefix "star" or "asteriated" or the suffix "asteria".

Examples - « Synthetic star ruby », « Asteriated quartz », « Quartz asteria ».

4.1.1.7. Cultured

The term "cultured" (5.21) or "cultivated" shall only be used for cultured pearls.

4.1.1.8. Semi-precious

The term "semi-precious" (5.72) is misleading and shall not be used.

4.1.2. Weight

4.1.2.1. Metric carat

The weight (5.89) of a gemstone shall be expressed in metric carats (ct); one carat is equivalent to 200 mg (1/5 g). The weight of a stone shall be stated in carats to two decimal places.

4.1.2.2. Rounding

Weight shall be rounded upwards if the third decimal is a 9, for example:

0.996 = 0.99 ct.

0.998 = 0.99 ct.

0.999 = 1.00 ct.

NOTE — One-hundredth of a carat may be expressed as a "point".

NOTE — It is unfair trade practice to misrepresent the weight of any stone or to deceive as to the weight of any stone. It is also an unfair trade practice to state or otherwise represent the weight of all stones contained in any article unless such weight figure is accompanied with equal emphasis and prominence by the words "total weight", or words of similar meaning, so as to indicate clearly that the weight so stated or represented is that of all stones in the article and not that of the centre or largest one.

4.1.3. Measurements

The measurements of a stone shall be expressed in millimetres to two decimal places. The following measurements shall apply;

- round shape: minimum diameter, maximum diameter and depth (total height);

- other shapes: length, width and depth (total height).

4.2.Gemstone clauses

4.2.1. Use of terms

Only those gemstones (3.1.1) that conform to the definition contained in 5.38 and 5.52 shall be described as natural gemstones and all descriptions for natural gemstones shall conform to the content of all other clauses herein.

4.2.2. The terms "Real", "Precious", "Genuine" or "Natural"

The adjectives "real" (5.68), "precious" (5.66), "genuine" (5.39) or "natural" (5.53) shall only be used to refer to or designate natural materials.

NOTE — It is unnecessary to note the genesis of a natural material, as the use of the correct name of the material alone and without qualification states that it is natural.

4.2.3. Place of origin

4.2.3.1. Geographic areas

Names of geographical areas shall only be used when they denote the areas where gemstones have been mined or harvested (place of origin).

4.2.3.2. Origin opinion

When places of origin for gemstones are presented they shall be considered as a matter of opinion.

4.2.3.3. Origin and quality

Place of origin does not imply a level of quality.

4.2.3.4. Processing centres and places or origin

Names of cutting, processing or exporting centres shall not be used to imply geographical origin.

4.2.4. Commercial names

Annex 8 lists the correct commercial names of the most common gemstones.

NOTE — The correct mineral name preceded or followed by a colour description may substitute for any variety or trade name.

4.2.4.1. Mineralogical names

Stones which are not listed in Annex 8 shall be described by their mineralogical name (as recognised by the International Mineralogical Association) or geological name only.

NOTE — The mineralogical name of a stone may be used in place of its commercial name(s) (e.g. olivine instead of peridot).

4.2.4.2. Biological names

Organic substances not specifically included within Clause 8 shall be described by their biological names.

NOTE — The biological or geological names of organic substances may be used instead of the commercial names.

4.2.4.3. Chatoyancy and asterism

Stones that display chatoyancy (5.13) or asterism (5.6) (whether listed in Clause 8 or not) shall be described according to clauses 4.1.1.5 or 4.1.1.6.

4.2.4.4. Approval of commercial names

All commercial names not listed in Clause 8, whether new or old, shall be submitted to CIBJO for approval and inclusion within this standard.

4.2.4.5. Names of gemstones used in direct conjunction with each other

Apart from the combinations given in Clause 8, do not use the names of gemstones (5.38) in direct conjunction with each other (for description of colour or otherwise) in such a fashion, that the identity of the material is not apparent.

Examples of name combinations that shall not be used are: « alexandrite sapphire », « topaz quartz », « citrine topaz », « topaz citrine ».

4.2.5. Treated Gemstones

Gemstones (5.38) may be treated (5.82) before or after cutting on the surface or within the stone (5.77) to modify their colour, clarity and or durability by various processes at varying levels of intensity and/or stability (5.76).

NOTE 1 - Gemstones have historically and traditionally been treated. The methods of the treatment processes vary within each variety and may change as new methods are developed.

NOTE 2 - In previous publications of the CIBJO Gemstone Book treatment types have been characterised by defining each as either requiring a 'specific disclosure' or a 'general disclosure', a

system that has served the jewellery industry well for many years. However, as an increasing number of complex treatments reach the marketplace the clauses in this version advocate an equal amount of transparency for all gemstone treatments.

4.2.5.1. Informing the customer

It is in the best interest and responsibility of the trade for consumers to be fully informed with regards to any treatments (5.82) applied to gemstones. Treatments may impact a gemstone value, and are often not permanent or may require special care (5.75); the seller shall therefore-inform the purchaser about the treatment and any special care (5.75) requirements. For special care requirements also see Clause 6 Annex A.

4.2.5.1.1. Prior to closing a sale

Members of the trade shall inform their customers which type of treatment a gemstone has undergone and ensure that they understand the gemstone has been treated by one or more of the processes mentioned in clause 4.2.5.2.

4.2.5.1.2. At the closing of a sale or in the event of a written presentation

The proper treatment description, adjoining the name of the gemstone, shall be clearly indicated on the purchaser's invoice and on any other commercial documents (5.16) that may be used to conclude a sale. See clause 4.2.5.2.

4.2.5.1.3. In advertisement and or any other promotional information

When unmounted gemstones, or gemstones mounted in jewellery, can be purchased without the possibility to be examined, and the advertisement (5.2) or solicitation indicates a price for that product, any treatment applied to the gemstones shall be disclosed according to clause 4.2.5.

4.2.5.1.4. Gemstones that are suspected, without certainty, of being treated

In the event there is a possibility that a gemstone may have been treated (5.82) and/or the seller does not have the documentation to confirm any treatment information, or if a treatment is not currently determinable scientifically or testing is not economically feasible, it is prudent and appropriate to disclose the suspected treatment rather than not. In any such cases the seller shall inform the purchaser of the possible treatments.

4.2.5.2. Treatment codes, types of treatments and methods to disclose treated gemstones.

The following chart includes:

a) a list of codes that are <u>to be used within the trade only</u>, See Clause 7 Annex B. b) types of gemstone treatments that are currently known to be available in the market, and c) ways to be used to describe treatments to customers at the point of sale, as well as in advertisement and in displays.

| (A) CODES | (B) | (C) METHOD TO DESCIBE |
|-----------|---|---------------------------------|
| | TYPE OF TREATMENT | TREATMENTS |
| w | Surface waxing - Gemstones treated (5.82) on the surface or just below the surface with a colourless agent such as wax (5.87) and/or oil (5.56) that acts or serves the same purpose as wax. | Waxed |
| ο | Fissure filling with oil - Gemstones that have fissures (5.29) or very narrow openings filled (5.28) with colourless to near-colourless agents such as oil (5.56). | Fissure filled with oil |
| RES | Fissure filling with resin or other polymers - Gemstones that have fissures (5.29) or very narrow openings filled (5.28) with colourless to near-colourless agents such as resin (5.70), polymer (5.65) or any similar substances, other than glass (5.40). | Fissure filled with resin |
| F | Filling of fissures, fractures and/or cavities with glass and other solidified substances - Gemstones treated by the filling (5.34) of open fissures (5.29), fractures (5.33) and or cavities (5.12) with substances such as glass, plastic or similar substances. | Fracture filled or glass filled |
| н | Heating - Gemstones treated by a thermal process in a furnace, kiln or other heating apparatus. | Heated |
| НР | Heat with pressure - Gemstones treated by the use of heat with pressure (5.42) to effect desired alterations of colour, clarity. | Heated with pressure |
| FAH | Flux assisted healing 5.31- Any corundum that shows indications of having undergone heat treatment, and a degree of healing along previous fractures (5.33), that contain residues such as glass from the heating process. | Heated in flux |
| В | Bleaching - Gemstones treated by bleaching (5.9) to remove or alter a colour by means of chemical or physical agents or light. | Bleached |
| R | Artificial irradiation - Gemstones (5.38) treated to change their colour by artificial irradiation (5.47). | Artificially irradiated |
| U | Diffusion treatment - Gemstones (5.38) with a colour treated and/or an optical phenomenon created, by diffusion (5.24) of chemical elements from an external source, with the exception of hydrogen and oxygen. | Diffusion treated |
| D | Dyeing - Gemstones (5.38) with a colour altered by dyes (5.27) or other colouring agents or stones darkened by the "sugar/acid" process. | Dyed |
| 1 | Impregnating - Gemstones treated by impregnation (5.44) with plastic or similar substances. This clause does not include the bonding (5.10) of powdered materials, which are artificial products (5.3). | Impregnated |
| с | Coating - Gemstones treated by coating (5.14) with a layer of a substance spread over the surface, or part of the surface, such as lacquering, enamelling, inking or foiling (5.32) for protection, colouration or deception. | Coated |

4.3. Artificial products clauses

4.3.1. General clauses

Any artificial product 3.2 may in certain situations comply with the classification and definition of an imitation (5.43). When this occurs, the product may be described in accordance with clause

4.3.1.1. Display

When artificial products or merchandise containing artificial products are displayed (whether alone or mixed with natural materials, in a single piece of merchandise or otherwise), easily noticeable and legible labels, adjoining these loose stones or pieces of merchandise, shall clearly indicate the precise nature of the objects being shown in accordance with the clauses herein.

4.3.1.2. Names of geographical areas

Names of geographical areas producing gemstones and names of cutting or exporting centres shall not be used when referring to artificial products.

4.3.1.3. The terms "real", "precious", "gemuine", "natural", "cultured" etc.

Do not use the adjectives "real" (5.68), "precious" (5.66), "genuine" (5.39), "natural" (5.53), "cultured" (5.21) or any word or phrase of a similar meaning including "precious stone", "gemstone" or "ornamental stone" in descriptions of artificial products.

4.3.1.4. Names of natural materials

Do not use the name of any natural material in direct conjunction with the name of an artificial product (for description of colour or otherwise) in such a fashion, that the identity of the stone is not apparent.

Examples: (correct) - « aquamarine coloured synthetic spinel » (not correct) - « emerald glass »

4.3.2. Artificial products partially made by man

4.3.2.1. Decription and display

Artificial products that are partially made by man shall (except as in clause 4.3) be described by the words "doublet" (4.3.2.1.1) or "triplet" (4.3.2.1.2) or "composite" (4.3.2.1.3) and these words shall be immediately preceded or followed by the correct names of the components of the assembled product. However, if all parts of a composite (excluding the bonding agent) are the same material, the name of this material shall be stated only once. The words "doublet" (5.26) or "triplet" (5.84) or "composite" (5.18) shall appear, in the event of a written presentation, with equal emphasis and prominence, with characters of the same size and colour as those of the names of the components. Do not abbreviate. Do not place an asterisk next to any name or combination of names, making reference to a footnote explanation of the fact that the product is a composite stone.

Examples: A doublet whose upper portion is a garnet and whose lower portion is glass shall be called a « garnet/glass doublet» or "doublet garnet/glass".

An artificially produced composite stone composed of two parts of colourless synthetic spinel bonded together (by a coloured layer or otherwise) shall be called a "synthetic spinel doublet" or "doublet synthetic spinel".

4.3.2.1.1. Opal doublet

A composition of two pieces where a slice of natural opal is bonded to a base material shall be called an "opal doublet" or "doublet opal".

4.3.2.1.2. Opal triplet

A composition of three pieces where a thin slice of natural opal is bonded to a dark base and provided with a transparent top layer, usually domed and usually consisting of quartz or glass, shall be called an "opal triplet" or "triplet opal".

4.3.2.1.3. Opal mosaic

The word "composite" shall be replaced by the word "mosaic", when the various parts of the composite are placed side by side (to create a picture or pattern or otherwise) providing that the application of this term adheres to the requirements regarding the term "composite" in clause 5.18

4.3.2.2. Terms other than specified in clause 4.3.2.1

Do not refer to any composite stone in any way other than that specified in clause 4.3.2.1 (except as in clause 4.3).

4.3.3. Synthetic stone clauses

4.3.3.1. Description and display

A synthetic stone (5.80) shall be described (except as in clause 4.3.1) by the correct name of its naturally occurring counterpart immediately preceded by the word "synthetic", "laboratory-grown" or "laboratory-created" (5.48) which shall appear, in the event of a written presentation, with equal emphasis and prominence, with characters of the same size and colour as those of the name itself. Do not abbreviate. Do not place an asterisk next to the name of a gemstone, making reference to a footnote explanation of the fact that the product is synthetic.

Example: « synthetic emerald ».

NOTE 1 - In the event that the national jewellery association, which is a member of CIBJO, deems that there is no acceptable local direct translation of the English terms 'laboratory-grown' or 'laboratory-created,' then only the translation of the term "synthetic" should be used.

NOTE 2 – The word "laboratory" refers to the facility which produces the synthetic stones. This should not be confused with a gemmological laboratory that is dedicated to the analysis, authentication, identification, of gemstones.

4.3.3.2. Terms other than "synthetic"

Do not use a qualifying term other than "synthetic", "laboratory-grown" or "laboratory-created" (5.48) to describe any synthetic stone.

NOTE— In the event that the national jewellery association, which is a member of CIBJO, deems that there is no acceptable local direct translation of the English terms 'laboratory-grown' or 'laboratory-created,' then only the translation of the term "synthetic" should be used.

4.3.3.3. Brand or manufacturers name

When using a brand name or the manufacturer's name these shall be added to the name of the stone (5.77) in one of the following manners:

Examples: « synthetic emerald by (name) », « (name) synthetic emerald ».

4.3.4. Artificially crystalised products with no natural counterparts (artificial stones)

4.3.4.1. Description and display

The name of an artificially crystallised product with no known natural counterpart (3.2.3) shall be used in conjunction with the term "artificial product" (5.3) or "artificial stone" (5.4) (except as in clause 4.3.1) which must appear, in the event of a written presentation, with equal emphasis and prominence, with characters of the same size and colour as those of the name itself. Do not abbreviate. Do not place an asterisk next to the name of an artificial stone, making reference to a footnote explanation of the fact that the product is artificial.

4.3.4.1.1. Name similarities

The name of an artificial stone shall not show a similarity to the name, or sound of the name (neither entirely, nor abbreviated, nor by way of an allusion), of any natural material nor be an established name for another artificial stone.

Correct examples:

for artificial yttrium aluminate, « YAG - artificial product », or « - YAG - artificial stone »

for artificial lithium niobate, « Linobate - artificial product » or « Linobate - artificial stone ». Incorrect examples:

do not use « Diamantine », « Diamlite », « Diamonair », « Smaryll », « Emeraldolite » etc.

4.3.4.1.2. Terms other than "artificial product", "artificial stone" or "imiation".

Do not use a qualifying term other than "artificial product" (5.3) or "imitation" (5.43) to describe such products except as allowed for in clause 4.3.

4.3.5. Artifical uncrystalised products

4.3.5.1. Descriptions and display

An artificial uncrystallised product (3.2.4) shall be described by the correct name of the material of which it is composed, in accordance with the clauses and annexes herein, or it shall be described by the name of the natural material it imitates, immediately preceded by the word "imitation", which shall appear, in the event of a written presentation, with equal emphasis and prominence, with characters of the same size and colour as those of the name itself: Do not abbreviate. Do not place

an asterisk next to the name of a gemstone or an organic material, making reference to a footnote explanation of the fact that the product is an imitation.

Correct examples: « glass », « plastic », « ceramic », etc. or « imitation emerald », « imitation coral », etc.

4.3.5.2. Terms other than those specified in clause 4.3.5.1

Do not use a qualifying term other than "artificial product" (5.3) or "imitation" (5.43) to describe such products except as allowed in clause 4.3.5.1

Correct exemples: « imitation amber », « imitation turquoise », etc. See pressed materials clause 5.67.

Do not refer to any imitation in any way other than that allowed for in clause 4.3.5.1

5. Terms and Definitions

For the purposes of this CIBJO Standard, the following terms and definitions shall apply.

5.1. Adularescence

an optical phenomenon a gem material exhibits when it displays a floating, billowy, white or bluish light effect in certain directions as the gemstone is turned due to diffused reflection of the light at fine parallel layers inside the stone.

5.2. Advertisement

the activity of attracting public attention to a product or business, as by announcements in the print, broadcast, or electronic media.

5.3. Artificial products

products which are partially or completely made by man.

5.4. Artificial stones

artificial products, used in jewellery or objets d'art, that do not have any natural counterparts.

5.5. Assembled stones

see composite stones (5.18).

5.6. Asterism

stones cut as cabochons that show two or more distinct and shimmering lines that intersect each other, while crossing the surface of the cabochon and are related to reflection effects from inclusions within the stone, are known as star stones. They exhibit asterism and are asteriated (as·te·ri·at·ed adjective). A stone exhibiting asterism is sometimes referred to as a "phenomenal" stone.

5.7. Aventurescence

an optical phenomenon a gem material exhibits when it displays bright or strongly coloured reflections of tiny platelets or flakes as the gemstone is turned.

5.8. Biogenic gem materials

gem materials (5.37), resulting from the activity of living organisms usually used in jewellery or objets d'art (5.55) due to a combination of properties that provide them with beauty, rarity and relative durability.

5.9. Bleaching

to remove or alter a colour by means of chemical or physical agents or light. See clause 4.2.5.2

5.10. Bonding

the cohesion of two or more parts or layers. See composite stones clause 5.18.

5.11. Carat

the unit of weight (5.89) of a diamond, gemstones, synthetic stone, cultured pearl, one carat being equivalent to 200 milligram (1/5 gram).

5.12. Cavity

a hollow or pitted area (a hole) within a stone reaching the surface. Also see: fissure (5.29), fracture (5.33) and fracture filling (5.34).

5.13. Chatoyancy

stones cut as cabochons that show a single distinct and shimmering line crossing the surface of the cabochon and is related to reflection effects from inclusions within the stone, are known as cat's-eyes. They exhibit chatoyancy and are chatoyant (cha·toy·ant adjective). A stone exhibiting chatoyancy is sometimes referred to as a "phenomenal" stone.

5.14. Coating

a layer of a substance spread over the surface, or part of the surface, of a stone for protection, colouration, decoration or deception; a covering layer. See clause 4.2.5.2

5.15. Colour change

the property of gem materials that change from one apparent colour to another apparent colour when moving between different sources of light such as daylight equivalent (D65 or Illuminent C) and incandescent equivalent light (Illuminent A).

5.16. Commercial document

any writing or electronic transmission that evidences, anticipates or concludes a commercial transaction, including any agreement, memorandum of agreement, purchase order, blanket purchase order, identification reports, blanket purchase agreement, purchase order

acknowledgment, request for proposal, quote, offer, warranty, representation certification, guaranty, import documentation, packing list, bill of sale, memorandum of consignment or receipt and advertisements. Commercial documents include mandatory information of the seller, and when necessary the buyer.

5.17. Commercial name

a name assigned for marketing purposes. See clause 4.2.4.4, 4.2.4 and clause 7 Annex B.

5.18. Composite stones

artificial products (5.3) composed of two or more previously separate parts or layers assembled by bonding (5.10) or other artificial methods. Their components may be natural and/or artificial but at least one part must be a gemstone.

5.19. Crystal

a crystalline (5.20) solid that consists of orderly arranged atoms, ions and/or molecules, bounded by natural plane surfaces with characteristic, specific orientations. Also see lead glass clause 5.50.

5.20. Crystalline / crystallised

having crystal structure. A solid material consisting of orderly arranged atoms, ions and or molecules, forming a crystal lattice.

5.21. Cultured

the term "cultured" is only applied to "cultured pearls" and no other material. The secretion of layers is caused by the metabolism of living molluscs. Cultured pearls are formations secreted in the interior of the productive molluscs.

NOTE – See the CIBJO Pearl Book for additional information.

5.22. Cut

the style or form in which gemstones and artificial products have been fashioned, i.e. emerald cut, brilliant cut, etc.

5.23. Cutting

one of several normal lapidary practices (5.54) used to modify a gemstone.

5.24. Diffusion

the diffusion of colour-causing or phenomenon-causing elements into a stone. See clause 4.2.5.2

5.25. Disclosure

the act of providing all material information (5.51) to fully inform a purchaser prior to or during a final sale.

5.26. Doublet

a composite stone consisting of two parts.

5.27. Dyeing

application of a dye or stain to natural materials (5.53) or artificial products (5.3) to alter their colour. See clause 4.2.5.2

5.28. Filling

to introduce a substance that occupies a whole or part of a void. See clause 4.2.5.2.

5.29. Fissure

a very narrow opening; a fine fracture.

5.30. Fluid

a substance of low enough viscosity that it will flow easily.

5.31. Flux assisted healing

a flux assisted heat treatment of corundum enabling the healing of fissures via a process of dissolution at high temperatures, and deposition upon cooling. As fissures are sealed, silica glass becomes trapped within the previous fissures and this glass is often referred to as residues. See "flux assisted healing" within the chart of clause 4.2.5.2

5.32. Foiling

the application of a very thin layer of highly reflective metal applied to all or part of the pavilion side or at the back of a gemstone with the intent of reflecting light back to the viewer's eye. This reflective surface can be "mirror like" and possibly coloured.

5.33. Fracture

an opening larger than a fissure (5.29) a crack.

5.34. Fracture filling

to occupy the whole or part of a fracture with a substance, e.g. glass, resins, oil, etc., to pervade; to spread throughout; to occupy completely; or to make full, with the purpose of making the fracture less visible. See clause 4.2.5.2

5.35. Frequency of occurrence

the rate of occurrence (according to current knowledge) for a treatment being applied to gemstones.

5.36. Gem

another term, often used as an adjective, to describe an exceptional gemstone noting perfection or very high quality. See gemstone clause 5.38.

NOTE - only the term "Gem" shall be qualified with the terms "real", "precious", "genuine" and "natural".

5.37. Gem materials

a term used to describe natural materials (5.53) that are used in jewellery and objets d'art (5.55) due to a combination of properties that provide them with beauty, rarity and relative durability.

NOTE – the term "gem" used alone often applies to describe an especially fine gemstone, e.g. "this sapphire is a gem", "the emerald is of gem quality". Also see Clause 5.36.

5.38. Gemstone

natural inorganic (5.46), organic (5.59) and biogenic (5.8) materials which have been formed completely by nature without human interference. Gemstones are usually used in jewellery or objets d'art due to a combination of properties that provide them with beauty, rarity and relative durability.

Note 1 - For the purpose of this standard all clauses and examples referring to gemstones may also apply to precious stones and ornamental stones.

Note 2 – The durability of gemstones may vary based on their hardness, toughness and stability.

Note 3 – Examples of various gemstone types, species and varieties, including naturally formed mineral assemblage/combinations, are listed in clause 3.1.1.

5.39. Genuine

actually possessing the alleged or apparent attribute or character. See clause 4.2.2

5.40. Glass

an amorphous substance, natural or artificial, solidified from a molten state, ordinarily consisting of a mixture of oxides (e.g. silicon, sodium, calcium, aluminium and lead oxides).

5.41. Heating

modifying a stone by a thermal process, e.g. in a furnace, kiln or other heating apparatus to change its colour and or clarity. See clause 4.2.5.2

5.42. Heat with pressure (HP)

a method to alter the appearance of a gemstone with a treatment that involves heat with pressure, see clause 4.2.5.2

5.43. Imitations

artificial products (5.3) that imitate the appearance of natural materials without having their chemical composition or their physical properties or their structure.

5.44. Impregnation

to fill throughout; saturate.

5.45. Impregnated

see Impregnation.

5.46. Inorganic gem materials

not consisting of or deriving from living matter.

5.47. Irradiated / Irradiation

exposing gemstones, diamonds, pearls, cultured pearls and artificial products to any form of radiation which is controlled wholly or partially by man, usually to alter their appearance. See clause 4.2.5.2.

5.48. Laboratory-created, laboratory-grown stones

see synthetic stones (5.80).

5.49. Labradorescence

an optical phenomenon which produces flashes of pure spectral colours that gradually changes as the gemstone is moved about in reflected light, caused by diffraction of light at alternating layers of exsolution lamellae of regular size.

5.50. Lead glass

artificially produced glass (5.40) with distinct high content of lead oxide.

Note – Lead glass (5.50) is often referred to as "crystal glass" or "lead crystal glass. Also see crystal clause 5.19.

5.51. Material information

any information that, if disclosed (5.25) prior to and or during the time of sale, would alter the value, saleability or desirability of materials listed in clause 3, including any care, cleaning and or maintenance requirements.

5.52. Mineral

a mineral is an element or chemical compound that is normally crystalline and that has been formed as a result of geological processes. (From the definition of a mineral, E.H. Nickel, Canadian Mineralogist, Vol. 33 the full reference is given in clause 2 "Normative references".)

5.53. Natural materials

materials that are completely formed by nature, without human intervention during its formation, that may subsequently be modified by normal lapidary practices (5.54),or which are altered by a treatment, see clause 4.2.5.2

5.54. Normal lapidary practices

methods used to fashion gemstones and artificial products which include cutting (5.23), sawing, grinding, faceting, polishing (5.64), carving, engraving and drilling.

5.55. Objets d'art

an object considered to be of artistic worth.

5.56. Oil

an agent such as natural or synthetic oil which are used for fissure filling, see clause 4.2.5.2

5.57. Opalescence

the milky or pearly appearance of some gemstones, (especially some common opals).

5.58. Organic gem materials

gem materials (5.37), relating to or derived from living matter, usually used in jewellery or objets d'art (5.55) due to a combination of properties that provide them with beauty, rarity and relative durability.

5.59. Organic substances

natural products of animal or plant origin.

NOTE - When used in jewellery or objets d'art (5.55) organic substances are considered to be gemstones.

5.60. Ornamental stones

gemstones that are used in objets d'art (5.55).

5.61. Permeate

the filling of fissures and/or fractures with oil, wax, resin (5.70), polymer or other fluid substances, other than glass to diminish their appearance.

5.62. Phenomenal stones

stones exhibiting asterism (5.6), chatoyancy (5.13), colour change (5.15) etc.

5.63. Play of colour

an optical phenomenon consisting of a variety of prismatic colours, seen in a rapid succession as a cabochon cut gemstone is moved about.

5.64. Polishing

a method to obtain a polish on gemstones and artificial stones, usually produced by friction or abrasion.

5.65. Polymer

A polymer is a large organic molecule made up of chains or rings of linked repeating subunits, which are called monomers. A polymer is formed by polymerization, the joining of many monomers. Because the molecules consist of many monomers, polymers tend to have high molecular masses. (Resin is a polymer, but it's a more specific term, describing a particular subset of polymers, see clause 5.70).

5.66. Precious stones

see gemstones.

5.67. Pressed materials

artificial products (5.3) manufactured by fusing or bonding ground pieces of natural stones to form a coherent whole.

5.68. Real

genuine (5.39); not artificial (5.3 and 5.4). See clause 4.2.2.

5.69. Reconstructed stones

a previously used misleading term that should not be used. See pressed materials (5.67).

5.70. Resin

a solid to semisolid transparent to opaque organic substance such as Canada balsam.

5.71. Rock

a natural solid aggregate of minerals.

5.72. Semi-precious

a misleading term that should not be used.

5.73. Shape

outline of a gemstone when viewed perpendicular to the table facet.

5.74. Simulant

see imitations (5.43).

5.75. Special care

additional care needed to preserve the appearance of natural materials (5.53), any treated materials or artificial products (5.3).

5.76. Stability

a measure of the ability of gemstones and organic substances to maintain their appearance under normal wear and care.

5.77. Stones

natural materials and artificial products used in jewellery or objets d'art (5.55), with the exception of metals.

5.78. Sugar/acid treatment

Matrix opals treated in a solution of acidified glucose-lactose with a few drops of concentrated sulfuric acid, then heated until the sugar solution solidifies. The gemstone is then immersed in sulfuric acid and heated to reduce the sugar to black carbon. See "dyeing" within the chart of clause 4.2.5.2

5.79. Surface diffusion

applying a combination of high temperature and chemicals to cause the diffusion of colour-causing or phenomenon-causing elements into a stone at or close to its surface. See clause 4.2.5.2.

5.80. Synthetic stones

artificial products having essentially the same chemical composition, physical properties and structure as that of their naturally occurring counterparts.

NOTE – The term "synthetic", "laboratory-created" and "laboratory-grown" are synonymous. See clause 4.3.3.2. However in the event the national jewellery association, which is a member of CIBJO, deems that there is no acceptable local direct translation of the English terms "laboratory-created" or "laboratory-grown" then only the translation of the term "synthetic" should be used.

5.81. Trade Codes

codes used within the trade, consisting of one or more letters, to designate the treatment of gemstones and organic substances, and/or to explain special care. See clause 8 Annex C.

5.82. Treated gemstones

Gemstones (3.1.1) that have been treated (3.1.2) by ways other than normal lapidary practices (5.54) to change their appearance and or durability.

5.83. Treatment

a practice that artificially changes the appearance and/or the durability of a gemstone or gem material by applying heating, diffusion, irradiation, filling, coating or other artificial processes.

5.84. Triplet

a composite stone (5.18) consisting of three parts.

5.85. Unknown

a term used to indicate that a person is unaware if a gemstone has undergone a treatment.

5.86. Void

a cavity (5.12) that contains no matter.

5.87. Wax

Wax is of two general types: (i) paraffin wax in petroleum distillates and (ii) microcrystalline wax in petroleum residua. Paraffin wax is a solid crystalline mixture of straightchain (normal) hydrocarbons ranging from 20 to 30 carbon atoms per molecule, and even higher. It is distinguished by its solid state at ordinary temperatures (25°C, 77°F) and low viscosity (at 99°C, 210°F) when melted.

5.88. Waxing

the application of a colourless wax or similar products to, or near, the surface of gemstones and organic substances, see clause 4.2.5.2.

5.89. Weight

mass of a gemstone (5.38) or an artificial product (5.3).

NOTE - The SI (Système International) generally uses the term mass instead of weight. Mass is a measure of an object's inertial property, or the amount of matter it contains. Weight is a measure of the force exerted on an object by gravity or the force needed to support it.

6. Annex A - Care requirements (Also see clause 8 Annex C)

6.1. Normal care

With all gemstones avoid rough handling and when not in wear, keep items of jewellery separate to avoid scratches. Clean with warm soapy water and gentle brushing. Ultrasonic cleaners should only be used with caution.

6.2. Special Care

In addition to normal care, some gemstones have special care requirements

- a. Some stones are prone to scratching due to low hardness. Wear them with care.
- b. Some stones cleave or fracture easily or are prone to the effects of brittleness e.g. rubbed facet edges. Wear them with care.
- c. Some stones are porous. Do not allow contact with coloured fluids.
- d. Some stones are prone to crack due to loss of structural water. Keep away from heat and drying environments.
- e. Some stones are prone to damage due to thermal shock. Do not expose them to extreme temperature changes.
- f. Some stones fade or revert to original colour when exposed to strong light. Do not wear or leave them for extended periods under these conditions.
- g. Some stones fade rapidly unless kept in the dark.
- h. Some stones are particularly susceptible to attack by acids. Keep them away from acids.
- i. Some organic substances dissolve upon contact with solvents such as nail varnish

remover. Keep them away from all solvents and other strong chemicals.

- j. Some stones are susceptible to damage from ultrasonic cleaning. Do not expose them to ultrasonic cleaning.
- k. Stones treated with dye, oil, resin, wax, or plastic are not permanent. Keep away from all solvents (including various dish-washing liquids), chemicals and heat.
- Fillers in voids/cavities, fissures, and/or open fractures, such as glass, plastic or hardened resin, can scratch more easily than the host stone or be more vulnerable to damage from heat or some acids (e.g. hydrofluoric). Keep away from all chemicals, heat or abrasives.
- m. Stones with superficial colour and surface layers are not suitable for re-cutting or repolishing.
- n. Coatings on stones are often easily removed by the action of solvents, heat or abrasives. Keep away from all solvents, heat or abrasives. Coated stones are not suitable for re-cutting or re-polishing.

7. Annex B (normative) Trade codes for Gemstones

Trade codes for gemstones <u>shall only be used within the industry</u> on commercial documents and jewellery tags as a method to identify treatments, and to assist a salesperson to inform customers of a treatment or to indicate that a stone is not treated. Methods of gemstone treatment disclosure shall be made in accordance with Clause 4.2.5.2. Trade codes may also be used on jewelry tags to indicate care requirement.

7.1. N Not treated

The N code may only be used for gemstones that currently have no known treatment.

7.2. Trade codes for treated gemstones (also see clause 4.2.5.2.)

B Bleaching
C Coating
D Dyeing
F Filling
FAH Flux assisted healing
H Heating
HP Heating with pressure

- I Impregnating
- Fissure filling with oil
- R Artificial irradiation
- **RES** Fissure Filling with resins or other polymers
- U Diffusion treatment
- W Surface waxing
- 7.3. Trade codes for care requirement
- 7.3.1. Code for gemstones and treated gemstones that require normal care.
 - NC Normal care see clause 6.1 Annex A
- 7.3.2. Code for gemstones and treated gemstones that require special care
 - SC Special care see clause 6.2 Annex A

NOTE – For all trade codes also see the charts in clause 8 Annex C.

8 Annex C (normative) List of gemstones

Material, variety, commercial name, treatments and references.

The footnotes below apply to the following pages in clause 8 Annex C:

- Frequency column the frequency (5.35) for "no treatment", "unknown", "rarely", "occasionally", "commonly" "almost always" or "always" used is based on the judgement of several gemmological laboratories, these may change from time to time.
- 2) Trade code column trade codes (5.81) shall only be used by the industry, (see clause 7 Annex B).
- 3) Stability column the stability (5.76) of treatments include "stable", "unstable" and "variable".
- 4) Care and advice column refer to clause 6 Annex A.
- 5) Available as synthetic column makes reference to gemstones that are available as synthetics.
- 6) Reference column the references column used is the most appropriate hyperlinked electronic reference available at the time of publication.

| Nomenclature | | | Tre | eatment | | | | |
|--------------------------|--|--|---|----------------------------|---|--|--------------------------------|---------------------------------------|
| Material / Species | Variety / type | Called in the trade - Species, variety or Trade (Commercial) name | Possible treatment type, lack of treatment & frequency encountered (see clause 4.2.5.) | Trade code ² | Stability - Variable Stable, or Unstable | Care advice (see Annex A clause 6) | Available as a synthetic | Informative References |
| Actinolite | | Actinolite | No treatment (commonly) | N/ <mark>SC</mark> | N/A | 6.1 6.2a & i | No | https://www.mindat.org/min-18.html |
| | | Actinolite | Dyed (rarely) | D/ <mark>SC</mark> | Unstable, | 6.1. 6.2. a, i & j | No | https://www.mindat.org/min-18.html |
| Actinolite- tremolite | Nephrite | Nephrite, or Nephrite-jade | No treatment (Commonly) | Ν | N/A | 6.1. 6.2. i | No | https://www.mindat.org/min-2881.html |
| | Nephrite | Nephrite, or Nephrite-jade | Dyed (rarely) | D/ <mark>SC</mark> | Unstable | 6.1. 6.2. i & j | No | https://www.mindat.org/min-2881.html |
| | Nephrite | Nephrite, or Nephrite-jade | Surface treated with wax (commonly) | W/SC | Unstable | 6.1. 6.2. i &.j | No | https://www.mindat.org/min-2881.html |
| | Nephrite Cat's eye | Nephrite Cat's eye | No treatment (commonly) | N | N/A | 6.1. | No | https://www.mindat.org/min-2881.html |
| Tremolite | | Tremolite | No treatment (commonly) | N | N/A | 6.1. | No | https://www.mindat.org/min-4011.html |
| | (with red to violet colour due to manganese) (with green colour due to chromium) | Hexagonite | No treatment (Commonly) | N/SC | N/A | 6.1. 6.2. a & i | No | https://www.mindat.org/min-11106.html |
| | (with green colour due to chromium) | Chrome tremolite | No treatment (Commonly) | N/ <mark>SC</mark> | N/A | 6.1. 6.2a & i | No | https://www.mindat.org/min-4011.html |
| Albite | | See Feldspar | _ | - | _ | - | _ | https://www.mindat.org/min-96.html |
| Almandine | | See Garnet | _ | _ | — | — | _ | https://www.mindat.org/min-452.html |
| Amber | | Amber | No treatment (Rarely) | N/SC | N/A | 6.1. 6.2. a, b, i, j & m | No | https://www.mindat.org/min-188.html |

| Nomenclature | | | Tre | atment | | | | |
|-----------------------|--------------------------------------|--|---|----------------------------|---|--|--------------------------------|---|
| Material / Species | Variety / type | Called in the trade - Species, variety or Trade (Commercial) name | Possible treatment type, lack of treatment & frequency encountered (see clause 4.2.5.) | Trade code ² | Stability - Variable Stable, or Unstable | Care advice (see Annex A clause 6) | Available as a synthetic | Informative References |
| | | Amber | Heated (commonly) | H/ <mark>SC</mark> | Stable but may become darker with age | 6.1. 6.2. a, b, i, j & m | No | https://www.mindat.org/min-188.html |
| | | Amber | Dyed or surface treated to add colour (rarely) | D/ <mark>SC</mark> | Unstable | 6.1. 6.2. a, b, i j & m | No | https://www.mindat.org/min-188.html |
| Amblygonite | | Amblygonite | No treatment (Commonly) | N/ <mark>SC</mark> | N/A | 6.1. 6.2. e & j | No | https://www.mindat.org/min-189.html |
| Montebrasite | | Montebrasite (Yellow) | No treatment (Commonly) | N/SC | N/A | 6.1. 6.2. e & j | No | https://www.mindat.org/min-2763.html |
| | | Montebrasite | Green produced by irradiation (usually) | R/ <mark>SC</mark> | Presently unknown | 6.1. 6.2. e & j | N o | https://www.mindat.org/min-2763.html |
| Ammonite | | Ammonite | No treatment (commonly) | N | _ | — | _ | https://www.mindat.org/taxon-7649433.html |
| | Ammonite Shell (with iridescence) | Ammolite | No treatment (Rarely) | N | N/A | 6.1. 6.2. a,b,h, & j | No | https://www.mindat.org/min-8393.html |
| | Ammonite Shell (with iridescence) | Ammolite | Impregnated with near-colourless hardened substances (commonly) | I/SC | Unstable | 6.1 6.2. a, b, h, j k & m | No | https://www.mindat.org/min-8393.html |
| Anatase | | Anatase | No treatment | Ν | — | - | _ | https://www.mindat.org/min-213.html |
| Andalusite | | Andalusite | No treatment (Almost always) | N | N/A | 6.1. | No | https://www.mindat.org/min-217.html |
| | | Andalusite | Heated (rarely) | н | Stable | 6.1. | No | https://www.mindat.org/min-217.html |
| | Chiastolite | Chiastolite | No treatment (Almost always) | Ν | N/A | 6.1. | No | https://www.mindat.org/min-1001.html |
| Andradite | | See Garnet | _ | _ | _ | — | _ | https://www.mindat.org/min-223.html |

| Nomenclature | | | Tre | eatment | | | | |
|----------------------------|-------------------|--|---|----------------------------|---|--|--------------------------------|---------------------------------------|
| Material / Species | Variety / type | Called in the trade - Species, variety or Trade (Commercial) name | Possible treatment type, lack of treatment & frequency encountered (see clause 4.2.5.) | Trade code ² | Stability - Variable Stable, or Unstable | Care advice (see Annex A clause 6) | Available as a synthetic | Informative References |
| Anthophyllite- Gedrite | Nuummite | Nuummite | No treatment (Commonly) | N/ <mark>SC</mark> | N/A | 6.1. 6.2.a | No | https://www.mindat.org/min-30937.html |
| Antigorite | | See Serpentine | No treatment (Commonly) | N | - | _ | _ | https://www.mindat.org/min-260.html |
| Apatite | | Apatite | No treatment (Almost always) | N/ <mark>SC</mark> | N/A | 6.1. 6.2. a & j | No | https://www.mindat.org/min-29229.html |
| | | Apatite | Heated (Rarely) | H/ <mark>SC</mark> | Stable | 6.1. 6.2. a & j | No | https://www.mindat.org/min-29229.html |
| Aragonite | | Aragonite | No treatment (Almost always) | N/ <mark>SC</mark> | N/A | 6.1. 6.2. a, h & j | No | https://www.mindat.org/min-307.html |
| | Fibrous aragonite | Aragonite Satin Spar | No treatment (Almost always) | N/ <mark>SC</mark> | N/A | 6.1. 6.2. a, h & j | No | https://www.mindat.org/min-42711.html |
| Axinite | | Axinite | No treatment (Almost always) | N/ <mark>SC</mark> | N/A | 6.1. 6.2. b&j | No | https://www.mindat.org/min-1459.html |
| Azurite | | Azurite, or Chessylite | No treatment (Occasionally) | N/ <mark>SC</mark> | N/A | 6.1. 6.2.a, b, h & j | No | https://www.mindat.org/min-447.html |
| | | Azurite, or Chessylite | Surface near-colourless waxing (Commonly) | W/ <mark>SC</mark> | Unstable | 6.1. 6.2. a, h, j & k | No | https://www.mindat.org/min-447.html |
| | | Azurite, or Chessylite | Impregnated with near-colourless oil, wax or resin (Rarely) | I/SC | Unstable | 6.1. 6.2. a, .2, h, j & k | No | https://www.mindat.org/min-447.html |
| Azurite- Malachite | Azurite-Malachite | Azurite-Malachite | No treatment (Occasionally) | N/ <mark>SC</mark> | N/A | 6.1. 6.2. a & h | No | https://www.mindat.org/min-448.html |
| Azurite- Malachite Cont | Azurite-Malachite | Azurite-Malachite | Surface-waxing (Commonly) | W/ <mark>SC</mark> | Unstable | 6.1. 6.2. a, h, & k | No | https://www.mindat.org/min-448.html |
| | Azurite-Malachite | Azurite-Malachite | Impregnated with near-colourless plastic or hardened resin (Rarely) | I/SC | Unstable | 6.1. 6.2. a, h, & k | No | https://www.mindat.org/min-448.html |

| Nomenclature | | | Tre | eatment | | | | |
|-----------------------|--|--|---|----------------------------|---|--|--------------------------------|---|
| Material / Species | Variety / type | Called in the trade - Species, variety or Trade (Commercial) name | Possible treatment type, lack of treatment & frequency encountered (see clause 4.2.5.) | Trade code ² | Stability - Variable Stable, or Unstable | Care advice (see Annex A clause 6) | Available as a synthetic | Informative References |
| Benitoite | | Benitoite | No treatment (Always) | N/SC | N/A | 6.1. 6.2. j | No | https://www.mindat.org/min-624.html |
| Beryl | Emerald (green colour due to chromium +/- vanadium) | Emerald | No treatment (Very rarely) | N/SC | N/A | 6.1. (If there are fissures or fractures) 6.2. b & j | Many | https://www.mindat.org/min-1375.html |
| | Emerald (green colour due to chromium +/- vanadium) | Emerald | Near-colourless oils and wax in fissures (commonly) | O/SC | Unstable | 6.1. 6.2. b, j & k | No | https://www.mindat.org/min-1375.html |
| | Emerald (green colour due to chromium +/- vanadium) | Emerald | Resins or other polymers in fissures (commonly) | RES /SC | Unstable | 6.1. 6.2. b, j & k | No | https://www.mindat.org/min-1375.html |
| | Emerald (green colour due to chromium +/- vanadium) | Emerald | Dyed with the use of coloured oils or resins (occasionally) | D/ <mark>SC</mark> | Unstable | 6.1. 6.2. b, j & k | No | https://www.mindat.org/min-1375.html |
| | Emerald (green colour due to chromium +/- vanadium) | Emerald | Open fractures or cavities filled with hardened resins (commonly) | RES /SC | Unstable | 6.1. 6.2. b, j, k & l | No | https://www.mindat.org/min-1375.html |
| Beryl cont. | Emerald and resins | Manufactured/Comp osite material or product | Resin filled open fractures and cavities (commonly) | F/ <mark>SC</mark> | Unstable | 6.1. 6.2. h & l | No | https://www.mindat.org/min-1375.html https://online.fliphtml5.com/vxvxw/grmq/#p=5 Q |
| | Aquamarine | Aquamarine | No treatment (Rarely) | N | N/A | 6.1. | Some | https://www.mindat.org/min-289.html |
| | Aquamarine | Aquamarine | Heated (almost always) | н | Stable | 6.1. | Some | https://www.mindat.org/min-289.html |

| | Nomenclature | | | eatment | | | | |
|-----------------------|------------------------------|--|---|----------------------------|---|--|--------------------------------|---------------------------------------|
| Material / Species | Variety / type | Called in the trade - Species, variety or Trade (Commercial) name | Possible treatment type, lack of treatment & frequency encountered (see clause 4.2.5.) | Trade code ² | Stability - Variable Stable, or Unstable | Care advice (see Annex A clause 6) | Available as a synthetic | Informative References |
| | Aquamarine | Aquamarine | Near-colourless oils and wax in fissures (occasionally) | O/ <mark>SC</mark> | Unstable | 6.1. 6.2. b, j & k | No | https://www.mindat.org/min-289.html |
| | Aquamarine | Aquamarine | Resins or other polymers in fissures (commonly) | RES/ <mark>S</mark> C | Unstable | 6.1. 6.2. b, j & k | No | https://www.mindat.org/min-289.html |
| | Goshenite | Goshenite, or Colourless Beryl | No treatment (Always) | N | N/A | 6.1. | No | https://www.mindat.org/min-7555.html |
| | Heliodor | Heliodor, or yellow Beryl, or Golden Beryl | No treatment (Occasionally) | N | N/A | 6.1. | Few | https://www.mindat.org/min-6727.html |
| | Heliodor | Heliodor, or yellow Beryl, or Golden Beryl | Irradiated (usually) | R/ <mark>SC</mark> | Variable | 6.1. 6.2. f | Few | https://www.mindat.org/min-6727.html |
| | Morganite | Morganite, or Pink Beryl | No treatment (occasionally) | N | N/A | 6.1. | Few | https://www.mindat.org/min-2783.html |
| | Morganite | Morganite, or Pink Beryl | Heated (commonly) | н | Stable | 6.1. | Few | https://www.mindat.org/min-2783.html |
| | Morganite | Morganite, or Pink Beryl | Irradiated (commonly) | R /SC | Stable | 6.1. | Few | https://www.mindat.org/min-2783.html |
| | Blue Beryl (Maxixe) | Blue Beryl (Maxixe) | No treatment (very rarely) | N/ <mark>SC</mark> | Unstable | 6.1. 6.2. f.g | No | https://www.mindat.org/min-10019.html |
| Beryl cont. | Blue Beryl (Maxixe- type) | Blue Beryl (Maxixe- type) | Blue (Maxixe type) irradiated (almost always) | R/ <mark>SC</mark> | Unstable | 6.1. 6.2. f.g | No | https://www.mindat.org/min-42714.html |
| | Green Beryl (Maxixe-type) | Green Beryl (Maxixe- type) | Green (Maxixe-type) Irradiated (almost always) | R/ <mark>SC</mark> | Unstable | 6.1. 6.2. g | No | https://www.mindat.org/min-42714.html |
| | (other colours) | Beryl with colour prefixes e.g., Green Beryl, Red Beryl etc. | No treatment (rarely) | N | N/A | 6.1. | Few | https://www.mindat.org/min-819.html |

| | Nomenclature | | Tre | eatment | | | | |
|-----------------------|-----------------|--|---|----------------------------|---|--|--------------------------------|--|
| Material / Species | Variety / type | Called in the trade - Species, variety or Trade (Commercial) name | Possible treatment type, lack of treatment & frequency encountered (see clause 4.2.5.) | Trade code ² | Stability - Variable Stable, or Unstable | Care advice (see Annex A clause 6) | Available as a synthetic | Informative References |
| | (other colours) | Beryl with colour prefixes e.g. Green Beryl, Red Beryl, etc. | Near-colourless oils and wax in fissures (commonly) | O/ <mark>SC</mark> | Unstable | 6.1. 6.2. b & j,k | No | https://www.mindat.org/min-819.html |
| | (other colours) | Beryl with colour prefixes e.g. Green Beryl, Red Beryl, etc. | Resins or other polymers in fissures (commonly) | RES/S C | Unstable | 6.1. 6.2. b & j,k | No | https://www.mindat.org/min-819.html |
| Beryllonite | | Beryllonite | No treatment (Commonly) | N/ <mark>SC</mark> | N/A | 6.1. 6.2. b, & j | No | https://www.mindat.org/min-644.html |
| Bone | | Bone | No treatment (Commonly) | N/SC | N/A | 6.1. 6.2. a, c, i, j & m | No | https://www.sciencelearn.org.nz/resources/179 6-bone-and-tooth-minerals |
| | | Bone | Bleached (commonly) | B/ <mark>SC</mark> | Stable | 6.1. 6.2. a, c, i & j | No | https://www.sciencelearn.org.nz/resources/179 6-bone-and-tooth-minerals |
| | | Bone | Dyed (occasionally) | D/ <mark>SC</mark> | Unstable | 6.1. 6.2. a, c, f, i, j & k | No | https://www.sciencelearn.org.nz/resources/179 6-bone-and-tooth-minerals |
| | | Bone | Near-colourless surface waxing (occasionally) | W/ <mark>SC</mark> | Unstable | 6.1. 6.2. a, c, f, i, j & k | No | https://www.sciencelearn.org.nz/resources/179 6-bone-and-tooth-minerals |
| Bone ont | | Bone | Impregnated with near-colourless plastic or hardened resins (commonly) | I/SC | Unstable | 6.1. 6.2. a, i, j & k | No | https://www.sciencelearn.org.nz/resources/179 6-bone-and-tooth-minerals |
| Brazilianite | | Brazilianite | No treatment (always) | N/SC | N/A | 6.1. 6.2. b, & j | No | https://www.mindat.org/min-760.html |
| Calcite | | Calcite | No treatment (Commonly) | N/ <mark>SC</mark> | N/A | 6.1. 6.2. a, b, h & j | No | https://www.mindat.org/min-859.html |
| | Fibrous Calcite | Calcite Satin Spar | No treatment (Commonly) | N/ <mark>SC</mark> | N/A | 6.1. 6.2. a, b, c, h & j | No | https://www.mindat.org/min-34300.html |

| | Nomenclature | | Tre | eatment | | | | |
|----------------------------|--------------------------------------|--|---|----------------------------|---|--|--------------------------------|--------------------------------------|
| Material / Species | Variety / type | Called in the trade - Species, variety or Trade (Commercial) name | Possible treatment type, lack of treatment & frequency encountered (see clause 4.2.5.) | Trade code ² | Stability - Variable Stable, or Unstable | Care advice (see Annex A clause 6) | Available as a synthetic | Informative References |
| | Massive Calcite | Marble | No treatment (rarely) | N/ <mark>SC</mark> | N/A | 6.1. 6.2. a, c, h & j | No | https://www.mindat.org/min-9507.html |
| | Massive Calcite | Marble | Surface near-colourless waxing (commonly) | W/SC | Unstable | 6.1. 6.2. a, c, h, j & k | No | https://www.mindat.org/min-9507.html |
| | Massive Calcite | Marble | Dyed (commonly) | D/ <mark>SC</mark> | Unstable | 6.1. 6.2. a, c, h, j & k | No | https://www.mindat.org/min-9507.html |
| Cassiterite | | Cassiterite | No treatment (Almost always) | N | N/A | 6.1. 6.2.j | No | https://www.mindat.org/min-917.html |
| Cerussite | | Cerussite | No treatment (Almost always) | N/ <mark>SC</mark> | N/A | 6.1. 6.2. a, h & j | No | https://www.mindat.org/min-934.html |
| Chalcedony | | See quartz | — | - | — | — | — | https://www.mindat.org/min-g6o.html |
| Charoite | | Charoite | No treatment (commonly) | N/ <mark>SC</mark> | N/A | 6.1. 6.2. j | No | https://www.mindat.org/min-972.html |
| | | Charoite | Surface near-colourless waxing (unknown) | W/ <mark>SC</mark> | Unstable | 6.1. 6.2. c, j & k | No | https://www.mindat.org/min-972.html |
| Chessylite, see Azurite | | | _ | _ | _ | _ | _ | https://www.mindat.org/min-4704.html |
| Chondrodite | | | No treatment (Usually) | _ | _ | _ | _ | https://www.mindat.org/min-1027.html |
| Chrysoberyl | | Chrysoberyl | No treatment (Commonly) | N | N/A | 6.1. | Some | https://www.mindat.org/min-1039.html |
| | Chrysoberyl Cat's- eye, Cymophane | Chrysoberyl Cat's-eye, or Cat's-eye | No treatment (Commonly) | N | N/A | 6.1. | Few | https://www.mindat.org/min-1039.html |
| | Chrysoberyl Cat's- eye, Cymophane | Chrysoberyl Cat's-eye, or Cat's-eye | Irradiated to change colour (rarely) | R | Stable | 6.1.some may be radioactive | Few | https://www.mindat.org/min-1039.html |

| | Nomenclature | | Tre | eatment | | | | |
|-----------------------|---|--|---|----------------------------|---|--|--------------------------------|---|
| Material / Species | Variety / type | Called in the trade - Species, variety or Trade (Commercial) name | Possible treatment type, lack of treatment & frequency encountered (see clause 4.2.5.) | Trade code ² | Stability - Variable Stable, or Unstable | Care advice (see Annex A clause 6) | Available as a synthetic | Informative References |
| | Alexandrite (definite colour change due to chromium) | Alexandrite | No treatment (commonly) | N | N/A | 6.1. | Many | https://www.mindat.org/min-109.html |
| | Alexandrite (definite colour change due to chromium) | Alexandrite | Near-colourless oils and wax in fissures (rarely) | RES/S C | Unstable | 6.1. 6.2. b, j & k | No | https://www.mindat.org/min-109.html |
| | Alexandrite (definite colour change due to chromium) | Alexandrite | Resins or other polymers in fissures (rarely) | RES/S C | Unstable | 6.1. 6.2. b, j & k | No | https://www.mindat.org/min-109.html |
| | Alexandrite Cat's- eye | Alexandrite Cat's-eye | No treatment (commonly) | N | N/A | 6.1. | Some | https://www.mindat.org/min-109.html |
| | Vanadium Chrysoberyl | | No treatment (commonly) | _ | _ | _ | _ | https://www.ssef.ch/wp- content/uploads/2018/06/2013-Schmetzer-et- al-natural-synthetic-V-chrysoberyl.pdf |
| Chrysocolla | | Chrysocolla | No treatment (Commonly) | N/SC | N/A | 6.1. 6.2. a, b, c, & j | No | https://www.mindat.org/min-1040.html |
| Chrysocolla cont | | Chrysocolla | Surface near-colourless waxing (occasionally) | W/SC | Unstable | 6.1. 6.2. a, b, c, j & k | No | https://www.mindat.org/min-1040.html |
| | | Chrysocolla | Impregnation with near-colourless plastic or hardened resin (occasionally) | I/ <mark>SC</mark> | Unstable | 6.1. 6.2. a, b, c, j & k | No | https://www.mindat.org/min-1040.html |
| Chrysotile | | See Serpentine | _ | _ | _ | - | _ | https://www.gemdat.org/gem-975.html |

| | Nomenclature | | Tre | eatment | | | | |
|------------------------|----------------|--|---|----------------------------|---|--|--------------------------------|--|
| Material / Species | Variety / type | Called in the trade - Species, variety or Trade (Commercial) name | Possible treatment type, lack of treatment & frequency encountered (see clause 4.2.5.) | Trade code ² | Stability - Variable Stable, or Unstable | Care advice (see Annex A clause 6) | Available as a synthetic | Informative References |
| Conch Pearl | | See the CIBJO Pearl Book | _ | _ | _ | - | _ | http://www.cibjo.org/wp- content/uploads/2020/04/20-12-22-Official- Pearl-Book.pdf |
| Copal | | Copal | No treatment (Occasionally) | N/SC | N/A | 6.1. 6.2. a, i, j & m | No | https://www.mindat.org/min-26751.html |
| | | Copal | Heat (commonly) | H/ <mark>SC</mark> | Stable | 6.1. 6.2. a, i, j & m | No | https://www.mindat.org/min-26751.html |
| | | Copal | Dyed or surface treated to add colour (rarely) | D/ <mark>SC</mark> | Unstable | 6.1. 6.2. a, i, j & m | No | https://www.mindat.org/min-26751.html |
| Precious Coral | White | White Coral | No treatment (occasionally) | N/ <mark>SC</mark> | N/A | 6.1. 6.2. a, c, h & j | No | https://www.gemdat.org/gem-42717.html http://www.cibjo.org/wp- content/uploads/2020/04/20-12-22-Official- Coral-Blue-Book.pdf |
| Precious Coral cont | White | White Coral | Bleached (commonly) | B/ <mark>SC</mark> | Stable | 6.1. 6.2. a, c, h & j | No | https://www.gemdat.org/gem-42717.html http://www.cibjo.org/wp- content/uploads/2020/04/20-12-22-Official- Coral-Blue-Book.pdf |
| | White | White Coral | Impregnated with near-colourless plastic or hardened resins (commonly) | I/SC | Unstable | 6.1. 6.2. a, c, h, j & k | No | https://www.gemdat.org/gem-42717.html http://www.cibjo.org/wp- content/uploads/2020/04/20-12-22-Official- Coral-Blue-Book.pdf |

| | Nomenclature | | Tre | atment | | | | |
|-----------------------|----------------|--|---|----------------------------|---|--|--------------------------------|---|
| Material / Species | Variety / type | Called in the trade - Species, variety or Trade (Commercial) name | Possible treatment type, lack of treatment & frequency encountered (see clause 4.2.5.) | Trade code ² | Stability - Variable Stable, or Unstable | Care advice (see Annex A clause 6) | Available as a synthetic | Informative References |
| | Pink | Pink Coral | No treatment (Occasionally) | N/SC | N/A | 6.1. 6.2. a, c, h & j | No | https://www.gemdat.org/gem-42717.html http://www.cibjo.org/wp- content/uploads/2020/04/20-12-22-Official- Coral-Blue-Book.pdf |
| | Pink | Pink Coral | Surface near-colourless waxing (commonly) | W/SC | Unstable | 6.1. 6.2. a, c, h, j & k | No | https://www.gemdat.org/gem-42717.html http://www.cibjo.org/wp- content/uploads/2020/04/20-12-22-Official- Coral-Blue-Book.pdf |
| | Pink | Pink Coral | Dyed (commonly) | D/SC | Unstable | 6.1. 6.2. a, c, h, j & k | No | https://www.gemdat.org/gem-42717.html http://www.cibjo.org/wp- content/uploads/2020/04/20-12-22-Official- Coral-Blue-Book.pdf |
| | Pink | Pink Coral | Impregnated with near-colourless plastic or hardened resins (commonly) | I/SC | Unstable | 6.1. 6.2. a, c, h, j & k | No | https://www.gemdat.org/gem-42717.html http://www.cibjo.org/wp- content/uploads/2020/04/20-12-22-Official- <u>Coral-Blue-Book.pdf</u> |
| | Red | Red Coral | See pink coral | | See pink coral | See pink coral | See pink coral | https://www.gemdat.org/gem-42717.html http://www.cibjo.org/wp- content/uploads/2020/04/20-12-22-Official- Coral-Blue-Book.pdf |

| | Nomenclature | | Tre | eatment | | | | |
|-----------------------|-----------------|--|---|----------------------------|---|--|--------------------------------|--|
| Material / Species | Variety / type | Called in the trade - Species, variety or Trade (Commercial) name | Possible treatment type, lack of treatment & frequency encountered (see clause 4.2.5.) | Trade code ² | Stability - Variable Stable, or Unstable | Care advice (see Annex A clause 6) | Available as a synthetic | Informative References |
| Coral | Golden | Golden Coral | No treatment (rarely) | N/SC | N/A | 6.1. 6.2a, c, i & j | No | http://www.cibjo.org/wp- content/uploads/2020/04/20-12-22-Official- Coral-Blue-Book.pdf |
| | Golden | Golden Coral | Bleached from black coral (commonly) | B/ <mark>SC</mark> | Stable | 6.1. 6.2. a, c, i & j | No | http://www.cibjo.org/wp- content/uploads/2020/04/20-12-22-Official- Coral-Blue-Book.pdf |
| | Black | Black Coral | No treatment (commonly) | N/ <mark>SC</mark> | N/A | 6.1. 6.2. a, c, i & j | No | http://www.cibjo.org/wp- content/uploads/2020/04/20-12-22-Official- Coral-Blue-Book.pdf |
| | (other colours) | Coral with colour prefix | See pink coral | | See pink coral | See pink coral | See pink coral | https://www.gemdat.org/gem-42717.html http://www.cibjo.org/wp- content/uploads/2020/04/20-12-22-Official- Coral-Blue-Book.pdf |
| Cordierite | | Cordierite, or Iolite | No treatment (Almost always) | N | N/A | 6.1. | No | https://www.mindat.org/min-1128.html |
| | | Corderite, or lolite | Dyed (rarely) | D/SC | Unstable | 6.1. 6.2. j, k | No | https://www.mindat.org/min-1128.html |
| Corundum | Ruby | Ruby | No treatment (Rarely) | N | N/A | 6.1. | Many | https://www.mindat.org/min-3473.html |
| | Ruby | Ruby | Heated (commonly) | н | Stable | 6.1. | Occasiona Ily | https://www.mindat.org/min-3473.html |

| | Nomenclature | | Tre | eatment | | | | |
|-----------------------|----------------|--|---|----------------------------|---|--|--------------------------------|---|
| Material / Species | Variety / type | Called in the trade - Species, variety or Trade (Commercial) name | Possible treatment type, lack of treatment & frequency encountered (see clause 4.2.5.) | Trade code ² | Stability - Variable Stable, or Unstable | Care advice (see Annex A clause 6) | Available as a synthetic | Informative References |
| | Ruby | Ruby | Flux assisted healing of fissures (commonly) | FAH | Stable | 6.1. | Occasiona Ily | https://www.mindat.org/min-3473.html https://static1.squarespace.com/static/sbfbb7e 6cc8fed3bb9293bf3/t/sbfe91ce88251b84af67d 92e/1543410128962/LMHC+Information+Sheet 1 V4 2011.pdf |
| | Ruby | Ruby | Glass filled open fractures and cavities (commonly) | F/SC | Unstable | 6.1. 6.2. h & l | Very unusual | https://www.mindat.org/min-3473.html https://static1.squarespace.com/static/5bfbb7e 6cc8fed3bb9293bf3/t/5bfe9219f950b7627afb4c b0/1543410205254/LMHC+Information+Sheet 3_V9_2012.pdf |
| Corundum cont | Ruby | Ruby | Lead glass filled open fractures and cavities (commonly) | F/SC | Unstable | 6.1. 6.2. h & l | No | https://www.mindat.org/min-3473.html https://www.gia.edu/doc/Ruby-Glass- Composites-etc.pdf https://static1.squarespace.com/static/sbfbb7e 6cc8fed3bb9293bf3/t/sbfe9219f950b7627afb4c bo/1543410205254/LMHC+Information+Sheet 3_V9_2012.pdf |

| | Nomenclature | | Tre | eatment | | | | |
|-----------------------|----------------|--|---|----------------------------|---|--|--------------------------------|---|
| Material / Species | Variety / type | Called in the trade - Species, variety or Trade (Commercial) name | Possible treatment type, lack of treatment & frequency encountered (see clause 4.2.5.) | Trade code ² | Stability - Variable Stable, or Unstable | Care advice (see Annex A clause 6) | Available as a synthetic | Informative References |
| | Ruby and glass | Manufactured/Compo site material or product | Lead glass filled open fractures and cavities (commonly) | F/SC | Unstable | 6.1. 6.2. h & l | No | https://www.gia.edu/doc/Ruby-Glass- Composites-etc.pdf https://static1.squarespace.com/static/sbfbb7e 6cc8fed3bb9293bf3/t/sbfe9219f950b7627afb4c bo/1543410205254/LMHC+Information+Sheet 3 V9 2012.pdf |
| | Ruby | Ruby | Dyed (occasionally) | D/ <mark>SC</mark> | Unstable | 6.1. 6.2. j & k | Very unusual | https://www.mindat.org/min-3473.html |
| | Ruby | Ruby | Introduction/diffusion of certain element(s) during the heating process (rarely) | U | Stable | 6.1. 6.2. m (Shallow) | Very unusual | https://www.mindat.org/min-3473.html https://static1.squarespace.com/static/5bfbb7e 6cc8fed3bb9293bf3/t/5bfe91f71ae6cf28edb202 7a/1543410168363/LMHC+Information+Sheet 2_V7_2011.pdf |
| | Ruby | Ruby | Near-colourless oil in fissures (occasionally) | O/ <mark>SC</mark> | Unstable | 6.1. 6.2. b, j & k | No | https://www.mindat.org/min-3473.html |
| Corundum cont | Ruby | Ruby | Resins or other polymers in fissures (rarely) | RES/S C | Unstable | 6.1. 6.2. b, j & k | No | https://www.mindat.org/min-3473.html |
| | Ruby | Ruby | Coloured oil in fissures (occasionally) | D/ <mark>SC</mark> | Unstable | 6.1. 6.2. b, j & k | No | https://www.mindat.org/min-3473.html |
| | Star Ruby | Star Ruby | No treatment (occasionally) | N | N/A | 6.1. | Many | <u>https://www.mindat.org/min-3473.html</u> |
| | Star Ruby | Star Ruby | Heated (rarely) | н | Stable | 6.1. | No | https://www.mindat.org/min-3473.html |

| | Nomenclature | | Tre | eatment | | | | |
|-----------------------|---------------------|--|---|----------------------------|---|--|--------------------------------|--|
| Material / Species | Variety / type | Called in the trade - Species, variety or Trade (Commercial) name | Possible treatment type, lack of treatment & frequency encountered (see clause 4.2.5.) | Trade code ² | Stability - Variable Stable, or Unstable | Care advice (see Annex A clause 6) | Available as a synthetic | Informative References |
| | Star Ruby | Star Ruby | Dyed (rarely) | D/ <mark>SC</mark> | Unstable | 6.1. 6.2. b, j & k | No | https://www.mindat.org/min-3473.html |
| | Star Ruby | Star Ruby | Near-colourless oil in fissures (occasionally) | O/ <mark>SC</mark> | Unstable | 6.1. 6.2. b, j & k | No | https://www.mindat.org/min-3473.html |
| | Star Ruby | Star Ruby | Introduction/diffusion of certain element(s) during the heating process (rarely) | U/SC | Stable | 6.1. 6.2. m (Shallow) | No | https://www.mindat.org/min-3473.html https://static1.squarespace.com/static/sbfbb7e 6cc8fed3bbg293bf3/t/sbfeg1f71ae6cf28edb202 7a/1543410168363/LMHC+Information+Sheet_ 2 V7_2011.pdf |
| | Star Ruby | Star Ruby | Lead glass filled open fractures and cavities (commonly) | F/SC | Unstable | | No | https://www.mindat.org/min-3473.html https://static1.squarespace.com/static/sbfbb7e 6cc8fed3bb9293bf3/t/sbfe9219f950b7627afb4c b0/1543410205254/LMHC+Information+Sheet_ 3_V9_2012.pdf |
| Corundum cont | Star Ruby and glass | Manufactured/compo site material or product | Lead glass filled open fractures and cavities (commonly) | F/SC | Unstable | 6.1. 6.2. h & l | No | https://www.gia.edu/doc/Ruby-Glass- Composites-etc.pdf https://static1.squarespace.com/static/sbfbb7e 6cc8fed3bb9293bf3/t/5bfe9219f950b7627afb4c bo/1543410205254/LMHC+Information+Sheet_ 3_V9_2012.pdf |
| | Sapphire (blue) | Sapphire | No treatment (Rarely) | N | N/A | 6.1. | Many | https://www.mindat.org/min-3529.html |
| | Sapphire (blue) | Sapphire | Heated (commonly) | Н | Stable | 6.1. | Some | https://www.mindat.org/min-3529.html |

| | Nomenclature | | Tre | eatment | | | | |
|-----------------------|----------------------|--|---|----------------------------|---|--|--------------------------------|---|
| Material / Species | Variety / type | Called in the trade - Species, variety or Trade (Commercial) name | Possible treatment type, lack of treatment & frequency encountered (see clause 4.2.5.) | Trade code ² | Stability - Variable Stable, or Unstable | Care advice (see Annex A clause 6) | Available as a synthetic | Informative References |
| | Sapphire (blue) | Sapphire | Flux assisted healing of fissures (rarely) | FAH | Stable | 6.1. 6.2l | No | https://www.mindat.org/min-3529.html |
| | Sapphire (blue) | Sapphire | Glass filled open fractures and cavities (rarely) | F/SC | Unstable | 6.1. 6.2. l | No | https://www.mindat.org/min-3529.html |
| | Sapphire and glass | Manufactured/compo site material or product | Lead glass filled open fractures and cavities (commonly) | F/SC | Unstable | 6.1. 6.2. h & l | No | https://www.gia.edu/doc/Ruby-Glass- Composites-etc.pdf https://static1.squarespace.com/static/sbfbb7e 6cc8fed3bb9293bf3/t/sbfe9219f950b7627afb4c bo/1543410205254/LMHC+Information+Sheet 3_V9_2012.pdf |
| Corundum cont | Sapphire (blue) | Sapphire | Introduction/diffusion of certain element(s) during the heating process (commonly) | U/SC | Stable | 6.1. 6.2. m (Shallow) | Very unusual | https://www.mindat.org/min-3529.html https://static1.squarespace.com/static/sbfbb7e 6cc8fed3bb9293bf3/t/sbfe91f71ae6cf28edb202 7a/1543410168363/LMHC+Information+Sheet_ 2_V7_2011.pdf |
| | Sapphire (blue) | Sapphire | Near-colourless oil in fissures (occasionally) | O/SC | Unstable | 6.1. 6.2. b, j & k | No | https://www.mindat.org/min-3529.html |
| | Sapphire (blue) | Sapphire | Resins or other polymers in fissures rarely | RES/S C | Unstable | 6.1. 6.2. b, j & k | No | https://www.mindat.org/min-3529.html |
| | Star Sapphire (blue) | Star Sapphire | No treatment (occasionally) | N | N/A | 6.1. | Many | https://www.mindat.org/min-3529.html |

| | Nomenclature | | Tre | eatment | | | | |
|-----------------------|--|--|---|----------------------------|---|--|--------------------------------|---|
| Material / Species | Variety / type | Called in the trade - Species, variety or Trade (Commercial) name | Possible treatment type, lack of treatment & frequency encountered (see clause 4.2.5.) | Trade code ² | Stability - Variable Stable, or Unstable | Care advice (see Annex A clause 6) | Available as a synthetic | Informative References |
| | Star Sapphire (blue) | Star Sapphire | Introduction/diffusion of certain element(s) during the heating process (occasionally) | U | Stable | 6.1. 6.2. m (Shallow) | Very unusual | https://www.mindat.org/min-3529.html |
| | Star sapphire (other colours) | Star Sapphire with colour prefix | No treatment (Occasionally) | N | N/A | 6.1. | Some | https://www.mindat.org/min-3529.html |
| | Star sapphire (other colours) | Star Sapphire with colour prefix | Heated (occasionally) | н | Stable | 6.1. | No | https://www.mindat.org/min-3529.html |
| Corundum cont | Star sapphire (other colours) | Star Sapphire with colour prefix | Introduction/diffusion of certain element(s) during the heating process (rarely) | U/SC | Stable | 6.1. 6.2. m (Shallow) | Very unusual | https://www.mindat.org/min-3529.html https://static1.squarespace.com/static/5bfbb7e 6cc8fed3bb9293bf3/t/5bfe91f71ae6cf28edb202 7a/1543410168363/LMHC+Information+Sheet_ 2_V7_2011.pdf |
| | Star sapphire and glass | Manufactured/compo site material or product | Lead glass filled open fractures and cavities (occasionally) | F/SC | Unstable | 6.2.1 | No | https://www.gia.edu/doc/Ruby-Glass- Composites-etc.pdf https://static1.squarespace.com/static/sbfbb7e 6cc8fed3bb9293bf3/t/sbfe9219f950b7627afb4c bo/1543410205254/LMHC+Information+Sheet 3_V9_2012.pdf |
| | Padparadscha subtle mixture of pink and orange | Padparadscha, or Pink-Orange Sapphire | No treatment (Rarely) | N | N/A | 6.1. | Many | https://www.mindat.org/min-39947.html https://static1.squarespace.com/static/sbfbb7e 6cc8fed3bb9293bf3/t/sbfe9241f950b7627afb4e 27/1543410242229/LMHC+Information+Sheet 4_V9_2018.pdf |

| | Nomenclature | | Tre | eatment | | | | |
|-----------------------|--|--|---|----------------------------|---|--|--------------------------------|---|
| Material / Species | Variety / type | Called in the trade - Species, variety or Trade (Commercial) name | Possible treatment type, lack of treatment & frequency encountered (see clause 4.2.5.) | Trade code ² | Stability - Variable Stable, or Unstable | Care advice (see Annex A clause 6) | Available as a synthetic | Informative References |
| | Padparadscha subtle mixture of pink and orange | Padparadscha, or Pink-Orange Sapphire | Heated (commonly) | н | Stable | 6.1. | Very unusual | https://www.mindat.org/min-39947.html |
| | Pink-Orange sapphire | Pink-Orange Sapphire | Irradiated (rarely) | R/ <mark>SC</mark> | Unstable | 6.1. 6.2. m | Very unusual | https://www.mindat.org/min-39947.html |
| Corundum cont | Pink-Orange sapphire | Pink-Orange Sapphire | Introduction/diffusion of certain element(s) during the heating process (commonly) | U/ <mark>SC</mark> | Stable | 6.1. 6.2. m (Shallow) | Very unusual | https://www.mindat.org/min-39947.html https://www.gia.edu/doc/Summer-2003-Gems- Gemology-Beryllium-Diffusion-Ruby- Sapphire.pdf |
| | Orange sapphire | Orange Sapphire | No treatment (Rarely) | N | N/A | 6.1. | Very unusual | https://www.mindat.org/min-3529.html |
| | Orange sapphire | Orange Sapphire | Heated (commonly) | н | Stable | 6.1. | Very unusual | https://www.mindat.org/min-3529.html |
| | Orange sapphire | Orange Sapphire | Introduction/diffusion of certain element(s) during the heating process (commonly) | U/SC | Stable | 6.1. 6.2. m (Shallow) | Very unusual | https://www.mindat.org/min-3529.html https://www.gia.edu/doc/Summer-2003-Gems- Gemology-Beryllium-Diffusion-Ruby- Sapphire.pdf |
| | Orange sapphire | Orange Sapphire | Irradiated (rarely) | R/ <mark>SC</mark> | Unstable | 6.1. 6.2. m (Shallow) | Very unusual | https://www.mindat.org/min-3529.html https://www.gia.edu/doc/The-Seven-Types-of- Yellow-Sapphire-and-Their-Stability-to- Light.pdf |
| | Yellow sapphire | Yellow Sapphire | No treatment (Rarely) | N | N/A | 6.1. | Many | https://www.mindat.org/min-3529.html |

| | Nomenclature | | Tro | eatment | | | | |
|-----------------------|-----------------|--|---|----------------------------|---|--|--------------------------------|---|
| Material / Species | Variety / type | Called in the trade - Species, variety or Trade (Commercial) name | Possible treatment type, lack of treatment & frequency encountered (see clause 4.2.5.) | Trade code ² | Stability - Variable Stable, or Unstable | Care advice (see Annex A clause 6) | Available as a synthetic | Informative References |
| | Yellow sapphire | Yellow Sapphire | Irradiated (rarely) | R/SC | Unstable | 6.1. 6.2. m | Very unusual | https://www.mindat.org/min-3529.html https://www.gia.edu/doc/The-Seven-Types-of- Yellow-Sapphire-and-Their-Stability-to- Light.pdf |
| Corundum cont | Yellow sapphire | Yellow Sapphire | Heated (commonly) | н | Stable | 6.1. | Very unusual | https://www.mindat.org/min-3529.html https://www.gia.edu/doc/The-Seven-Types-of- Yellow-Sapphire-and-Their-Stability-to- Light.pdf |
| | Yellow sapphire | Yellow Sapphire | Introduction/diffusion of certain element(s) during the heating process (commonly) | U | Stable | 6.1. | Very unusual | https://www.mindat.org/min-3529.html https://www.gia.edu/doc/Summer-2003-Gems- Gemology-Beryllium-Diffusion-Ruby- Sapphire.pdf |
| | (other colours) | Sapphire with colour prefix, or Corundum with colour prefix | No treatment (rarely) | N | Stable (some yellow are unstable) | 6.1. | Many | https://www.mindat.org/min-3529.html |
| | (other colours) | Sapphire with colour prefix, or Corundum with colour prefix | Heated (commonly) | н | Stable | 6.1. | Very unusual | https://www.mindat.org/min-3529.html |
| | (other colours) | Sapphire with colour prefix, or Corundum with colour prefix | Introduction/diffusion of certain element(s) during the heating process (commonly) | U/SC | Stable | 6.1. 6.2. m (Shallow) | Very unusual | https://www.mindat.org/min-3529.html https://www.gia.edu/doc/Summer-2003-Gems- Gemology-Beryllium-Diffusion-Ruby- Sapphire.pdf |

| | Nomenclature | | Tro | eatment | | | | |
|-----------------------|--|--|---|----------------------------|---|--|--------------------------------|---|
| Material / Species | Variety / type | Called in the trade - Species, variety or Trade (Commercial) name | Possible treatment type, lack of treatment & frequency encountered (see clause 4.2.5.) | Trade code ² | Stability - Variable Stable, or Unstable | Care advice (see Annex A clause 6) | Available as a synthetic | Informative References |
| | Corundum and glass | Manufactured/comp osite material or product | Lead glass filled open fractures and cavities (commonly) | F/SC | Unstable | 6.1. 6.2. h & l | No | https://www.mindat.org/min-3529.html https://www.gia.edu/doc/Ruby-Glass- Composites-etc.pdf |
| Corundum cont | (other colours) | Sapphire with colour prefix, or Corundum with colour prefix | Irradiation to produce yellow colour (rarely) | R/ <mark>SC</mark> | Unstable | 6.1. 6.2. g | No | https://www.mindat.org/min-3529.html https://www.gia.edu/doc/The-Seven-Types-of- Yellow-Sapphire-and-Their-Stability-to- Light.pdf |
| Danburite | | Danburite | No treatment (Always) | Ν | N/A | 6.1. 6.2. j | No | https://www.mindat.org/min-1218.html |
| Datolite | | Datolite | No treatment (Always) | Ν | N/A | 6.1. 6.2. j | No | https://www.mindat.org/min-1340.html |
| Diamond | | See the CIBJO Diamond Book | _ | _ | _ | _ | _ | <u>http://www.cibjo.org/wp-</u> <u>content/uploads/2020/04/20-12-26-Oficial-</u> <u>Diamond-Book.pdf</u> |
| Diaspore | | Diaspore | No treatment (Always) | N/SC | N/A | 6.1. 6.2. b & j | No | https://www.mindat.org/min-1285.html |
| Diopside | | Diopside | No treatment (Always) | N/ <mark>SC</mark> | N/A | 6.1. 6.2b & j | No | https://www.mindat.org/min-1294.html |
| Diopside | Chrome Diopside (green colour due to chromium) | Chrome Diopside | No treatment (Always) | N/SC | N/A | 6.1. 6.2. b & j | No | https://www.gemdat.org/gem-10648.html |
| | Violane (purple) | Violan, or Violane | No treatment (Always) | N/ <mark>SC</mark> | N/A | 6.1. 6.2. b & j | No | https://www.gemdat.org/gem-8118.html |
| | Star Diopside | Star Diopside | No treatment (Always) | N/ <mark>SC</mark> | N/A | 6.1. 6.2. b & j | No | https://www.gemdat.org/gem-1294.html |

| | Nomenclature | | Tre | eatment | | | | |
|---------------------------|--|--|---|----------------------------|---|--|--------------------------------|---------------------------------------|
| Material / Species | Variety / type | Called in the trade - Species, variety or Trade (Commercial) name | Possible treatment type, lack of treatment & frequency encountered (see clause 4.2.5.) | Trade code ² | Stability - Variable Stable, or Unstable | Care advice (see Annex A clause 6) | Available as a synthetic | Informative References |
| Dioptase | | Dioptase | No treatment (Always) | N | N/A | _ | No | https://www.mindat.org/min-1295.html |
| Disthene | | See Kyanite | No treatment (Always) | N | N/A | _ | No | https://www.mindat.org/min-25543.html |
| Dolomite | | Dolomite | No treatment (Always) | N | N/A | _ | No | https://www.mindat.org/min-1304.html |
| Dumortierite | | Dumortierite | No treatment (Always) | N | N/A | 6.1. | No | https://www.mindat.org/min-1329.html |
| Ekanite | | Ekanite | No treatment (Always) | N | N/A | Naturally radioactive | No | https://www.mindat.org/min-1361.html |
| Enstatite | | Enstatite | No treatment (Always) | N/SC | N/A | 6.1. 6.2. b & j | No | https://www.mindat.org/min-1384.html |
| | (with green colour due to chromium) | Chrome Enstatite | No treatment (Always) | N/SC | N/A | 6.1. 6.2. b & j | No | https://www.mindat.org/min-1384.html |
| | Bronzite | Bronzite | No treatment (Always) | N/SC | N/A | 6.1. 6.2. b & j | No | https://www.mindat.org/min-5293.html |
| Enstatite- Ferrosilite | Ferroan Enstatite | Hypersthene | No treatment (Always) | N/SC | N/A | 6.1. 6.2. b & j | No | https://www.mindat.org/min-1995.html |
| Epidote | | Epidote | No treatment (Always) | N/SC | N/A | 6.1. 6.2. b & j | No | https://www.mindat.org/min-1389.html |
| Euclase | | Euclase | No treatment (Always) | N/ <mark>SC</mark> | N/A | 6.1. 6.2. b & j | No | https://www.mindat.org/min-1418.html |
| Feldspar (group) | | | _ | _ | _ | — | _ | https://www.mindat.org/min-1624.html |
| Albite | | Albite | No treatment (Always) | N/SC | N/A | 6.1. 6.2. b & j | No | https://www.mindat.org/min-96.html |
| | Andesine (red) | Andesine | No treatment (rarely) | N/SC | N/A | 6.1. 6.2. b & j | No | https://www.mindat.org/min-220.html |

| | Nomenclature | | Tre | eatment | | | | |
|-----------------------|-------------------------------------|--|---|----------------------------|---|--|--------------------------------|--|
| Material / Species | Variety / type | Called in the trade - Species, variety or Trade (Commercial) name | Possible treatment type, lack of treatment & frequency encountered (see clause 4.2.5.) | Trade code ² | Stability - Variable Stable, or Unstable | Care advice (see Annex A clause 6) | Available as a synthetic | Informative References |
| | Andesine (red) | Andesine | Cu diffusion (commonly) | U/ <mark>SC</mark> | Stable | 6.1. 6.2. b & j | No | https://www.mindat.org/min-220.html https://www.gia.edu/doc/separation- abduriyim.pdf |
| | Oligoclase | Oligoclase | No treatment (Always) | N/ <mark>SC</mark> | N/A | 6.1. 6.2. b & j | No | https://www.mindat.org/min-2976.html |
| | Oligoclase with aventurescence | Sunstone, or aventurescent feldspar | No treatment (Always) | N/ <mark>SC</mark> | N/A | 6.1. 6.2. b & j | No | https://www.mindat.org/min-10984.html |
| Anorthite | Bytownite | Bytownite | No treatment (always) | | | | | https://www.mindat.org/min-815.html |
| | Labradorite | Labradorite | No treatment (occasionally) | N/SC | N/A | 6.1. 6.2. b & j | No | https://www.mindat.org/min-2308.html |
| | | Labradorite | Cu diffusion (commonly) | U/ <mark>SC</mark> | Stable | 6.1. 6.2. b & j | No | https://www.mindat.org/min-2308.html https://www.gia.edu/doc/separation- abduriyim.pdf |
| | Labradorite | Labradorite | Surface near-colourless waxing (occasionally) | W/SC | Unstable | 6.1. 6.2. b, j & k | No | https://www.mindat.org/min-2308.html |
| | Labradorite with labradorescence | Labradorite, or Spectrolite | No treatment (commonly) | N/SC | N/A | 6.1. 6.2. b & j | No | https://www.mindat.org/min-9131.html |
| | Labradorite with labradorescence | Labradorite, or Spectrolite | Surface near-colourless waxing (occasionally) | W/SC | Unstable | 6.1. 6.2. b, j & k | No | https://www.mindat.org/min-9131.html |
| | Labradorite with aventurescence | Labradorite Sunstone | No treatment (commonly) | N/ <mark>SC</mark> | N/A | 6.1. 6.2. b & j | No | https://www.mindat.org/min-10984.html |

| | Nomenclature | | Tro | eatment | | | | |
|-----------------------|---|--|---|----------------------------|---|--|--------------------------------|--------------------------------------|
| Material / Species | Variety / type | Called in the trade - Species, variety or Trade (Commercial) name | Possible treatment type, lack of treatment & frequency encountered (see clause 4.2.5.) | Trade code ² | Stability - Variable Stable, or Unstable | Care advice (see Annex A clause 6) | Available as a synthetic | Informative References |
| | Labradorite with labradorescence | Labradorite, or Spectrolite | Dyed (occasionally) | D/ <mark>SC</mark> | Unstable | 6.1. 6.2. a, b, j & k | No | https://www.mindat.org/min-9131.html |
| Microcline | Amazonite | Amazonite | No treatment (commonly) | N/ <mark>SC</mark> | N/A | 6.1. 6.2. b & j | No | https://www.mindat.org/min-184.html |
| | Amazonite | Amazonite | Near-colourless waxed or oiled (commonly) | W/SC or O/SC | Unstable | 6.1. 6.2. b, j & k | No | https://www.mindat.org/min-184.html |
| | Amazonite | Amazonite | Impregnated-with near-colourless plastic or hardened resins (occasionally) | I/SC | Unstable | 6.1. 6.2. j & k | No | https://www.mindat.org/min-184.html |
| Orthoclase | | Orthoclase | No treatment (Always) | N/ <mark>SC</mark> | N/A | 6.1. 6.2. b & j | No | https://www.mindat.org/min-3026.html |
| Orthoclase cont. | Orthoclase transparent, yellow | Yellow Orthoclase | No treatment (Always) | N/ <mark>SC</mark> | N/A | 6.1. 6.2. b & j | No | https://www.mindat.org/min-3026.html |
| | Adularia (orthoclase with adularescence) | Moonstone | No treatment (Always) | N/ <mark>SC</mark> | N/A | 6.1 6.2. b & j | No | https://www.mindat.org/min-2774.html |
| Fluorite | | Fluorite | No treatment ((Always) | N/ <mark>SC</mark> | N/A | 6.1. 6.2. a, b & j | No | https://www.mindat.org/min-1576.html |
| | Blue Fluorite | | No treatment (Occasionally) | N/ <mark>SC</mark> | N/A | 6.1. 6.2. a, b & j | No | https://www.mindat.org/min-1576.html |
| | Blue Fluorite | | Heated (Occasionally) | H/ <mark>SC</mark> | Stable | 6.1. 6.2. a, b & j | No | https://www.mindat.org/min-1576.html |
| | Blue John (Multicoloured: mainly blue, violet and purple, and banded) | Blue John | No treatment (Commonly | N/SC | N/A | 6.1. 6.2. a, b & j | No | https://www.mindat.org/min-698.html |

| | Nomenclature | | Tre | eatment | | | | |
|-----------------------|---|--|---|----------------------------|---|--|--------------------------------|---|
| Material / Species | Variety / type | Called in the trade - Species, variety or Trade (Commercial) name | Possible treatment type, lack of treatment & frequency encountered (see clause 4.2.5.) | Trade code ² | Stability - Variable Stable, or Unstable | Care advice (see Annex A clause 6) | Available as a synthetic | Informative References |
| | Blue John (Multicoloured: mainly blue, violet and purple, and banded) | Blue John | Impregnated with near-colourless resin (rarely) | I/SC | N/A | 6.1. 6.2. j & k | No | https://www.mindat.org/min-698.html |
| Forsterite | | See also Peridot | _ | _ | _ | _ | _ | https://www.mindat.org/min-1584.html |
| Gahnite | | See Spinel | _ | _ | _ | _ | _ | https://www.mindat.org/min-1632.html |
| Gahnospinel | | See Spinel | _ | _ | _ | _ | _ | https://www.mindat.org/min-1633.html |
| Garnet (group) | | | _ | _ | _ | _ | _ | https://www.mindat.org/min-10272.html |
| Almandine | | Almandine or Almandite | No treatment (Always) | N | N/A | 6.1. 6.2. e | No | https://www.mindat.org/min-452.html |
| Almandine- Pyrope | Rhodolite | Rhodolite | No treatment (Always) | N | N/A | 6.1. 6.2. e | No | https://www.mindat.org/min-6719.html |
| Andradite | | Andradite | No treatment (Always) except demantoid | N | N/A | 6.1. 6.2. e | No | https://www.mindat.org/min-223.html |
| | Demantoid | Demantoid | No treatment (Rarely) | N | N/A | 6.1. 6.2. e | No | https://www.mindat.org/min-1258.html |
| | Demantoid | Demantoid | Heated (commonly) | н | Stable | 6.1. 6.2. e | No | https://www.mindat.org/min-1258.html https://gsa.confex.com/gsa/2017AM/webprogr am/Paper294617.html |
| | Melanite | Melanite | No treatment (Always) | N | N/A | 6.1. 6.2. e | No | https://www.mindat.org/min-7443.html |

| | Nomenclature | | Tre | atment | | | | |
|-------------------------|---|--|---|----------------------------|---|--|--------------------------------|--|
| Material / Species | Variety / type | Called in the trade - Species, variety or Trade (Commercial) name | Possible treatment type, lack of treatment & frequency encountered (see clause 4.2.5.) | Trade code ² | Stability - Variable Stable, or Unstable | Care advice (see Annex A clause 6) | Available as a synthetic | Informative References |
| | Topazolite | Topazolite | No treatment (Always) | N | N/A | | No | https://www.mindat.org/min-7535.html |
| Andradite- Grossular | | Mali garnet | No treatment (Always) | N | N/A | | No | https://www.mindat.org/min-8597.html |
| Grossular | Tsavorite (green colour due to vanadium and/or chromium) | Tsavorite, or Tsavolite, or Chrome Grossular | No treatment (Always) | N | N/A | 6.1. 6.2. e | No | https://www.mindat.org/min-1755.html https://www.mindat.org/min-7836.html |
| | Hessonite | Hessonite | No treatment (Always) | N | N/A | 6.1. 6.2. e | No | https://www.mindat.org/min-1882.html |
| | Grossular (other colours) | Grossular with colour prefix | No treatment (Always) | N | N/A | 6.1. 6.2. e | No | https://www.mindat.org/min-1755.html |
| Pyrope | | Ругоре | No treatment (Always) | N | N/A | 6.1. 6.2. e | No | https://www.mindat.org/min-3321.html |
| | Chrome Pyrope | Chrome Pyrope | No treatment (Always) | N | N/A | 6.1. 6.2. e | No | https://www.mindat.org/min-41651.html |
| Pyrope- Spessartine | | Pyrope-Spessartine, or Malaya Garnet or Umbalite | No treatment (Always) | N | N/A | 6.1. 6.2. e | No | https://www.mindat.org/min-42908.html |
| Spessartine | | Spessartine, Spessartite or Mandarin Garnet | No treatment (Always) | N | N/A | 6.1. 6.2. e | No | https://www.mindat.org/min-3725.html |
| Uvarovite | | Uvarovite | No treatment (Always) | N | N/A | 6.1. 6.2. e | No | https://www.mindat.org/min-4125.html |
| Grossular | | See Garnet (group) | _ | _ | _ | — | No | https://www.mindat.org/min-1755.html |
| Grandidierite | | Grandidierite | No treatment (Always) | N | N/A | — | No | https://www.mindat.org/min-1737.html |

| | Nomenclature | | Tre | eatment | | | | |
|-----------------------|----------------|--|---|----------------------------|---|--|--------------------------------|--|
| Material / Species | Variety / type | Called in the trade - Species, variety or Trade (Commercial) name | Possible treatment type, lack of treatment & frequency encountered (see clause 4.2.5.) | Trade code ² | Stability - Variable Stable, or Unstable | Care advice (see Annex A clause 6) | Available as a synthetic | Informative References |
| Gypsum | Alabaster | Alabaster | No treatment (Rarely) | N/SC | N/A | 6.1. 6.2. a, b, c & j | No | https://www.mindat.org/min-1784.html https://www.mindat.org/min-90.html |
| | Alabaster | Alabaster | Dyed (commonly) | D/ <mark>SC</mark> | Unstable | 6.1. 6.2. a, b, c, j & k | No | https://www.mindat.org/min-90.html |
| Gypsum cont | Alabaster | Alabaster | Surface near-colourless waxing (commonly) | W/ <mark>SC</mark> | Unstable | 6.1. 6.2. a, b, c, j & k | No | https://www.mindat.org/min-go.html |
| | Satin Spar | Satin Spar | No treatment (commonly) | N/ <mark>SC</mark> | N/A | 6.1. 6.2. a, b, c & j | No | https://www.mindat.org/min-8574.html |
| Hauyne | | Hauyne | No treatment (almost always) | N | N/A | 6.1. | No | https://www.mindat.org/min-1833.html |
| Hauyne cont. | | Hauyne | Impregnated with near-colourless plastic or hardened resin (rarely) | I/SC | Unstable | 6.1. 6.2. a, c, j & k | No | https://www.mindat.org/min-1833.html |
| Hematite | | Hematite | No treatment (Always) | N | N/A | 6.1. | No | https://www.mindat.org/min-1856.html |
| Hibonite | | Hibonite | No treatment (Always) | N | N/A | _ | No | https://www.mindat.org/min-1897.html |
| Horn | | Horn | No treatment (Commonly) | N/ <mark>SC</mark> | N/A | 6.1. 6.2. a, c, i, j & m | No | Pedersen M.C., 2004. Gem and ornamental materials of organic origin (book) |
| | | Horn | Bleached (commonly) | B/SC | Stable | 6.1. 6.2. a, c, i & j | No | Pedersen M.C., 2004. Gem and ornamental materials of organic origin (book) |

| | Nomenclature | | Tre | eatment | | | | |
|-----------------------|----------------|--|---|----------------------------|---|--|--------------------------------|--|
| Material / Species | Variety / type | Called in the trade - Species, variety or Trade (Commercial) name | Possible treatment type, lack of treatment & frequency encountered (see clause 4.2.5.) | Trade code ² | Stability - Variable Stable, or Unstable | Care advice (see Annex A clause 6) | Available as a synthetic | Informative References |
| | | Horn | Dyed (occasionally) | D/ <mark>SC</mark> | Unstable | 6.1. 6.2. a, c, f, i, j & k | No | Pedersen M.C., 2004. Gem and ornamental materials of organic origin (book) |
| | | Horn | Near-colourless surface waxing (occasionally) | W/SC | Unstable | 6.1. 6.2. a, c, f, i, j & k | No | Pedersen M.C., 2004. Gem and ornamental materials of organic origin (book) |
| Horn cont | | Horn | Impregnated with near-colourless plastic or hardened resins (commonly) | I/ <mark>SC</mark> | Unstable | 6.1. 6.2. a, i, j & k | No | Pedersen M.C., 2004. Gem and ornamental materials of organic origin (book) |
| Howlite | | Howlite | No treatment (Rarely) | N | N/A | 6.1. | No | https://www.mindat.org/min-1936.html |
| | | Howlite | Dyed (almost always) | D/ <mark>SC</mark> | Unstable | 6.1. 6.2. a, c, j & k | No | https://www.mindat.org/min-1936.html |
| Hypersthene | | See Enstatite | _ | _ | _ | _ | _ | https://www.mindat.org/min-1995.html |
| Idocrase | | See Vesuvianite | _ | | _ | _ | _ | https://www.mindat.org/min-4223.html |
| Iolite | | See Cordierite | _ | _ | _ | _ | — | https://www.mindat.org/min-5119.html |
| lvory | | lvory | No treatment (Commonly) | N/ <mark>SC</mark> | N/A | 6.1. 6.2. a, c, i, j & m | No | https://www.mindat.org/min-42718.html |
| | | lvory | Bleached (commonly) | B/ <mark>SC</mark> | Stable | 6.1. 6.2. a, c, i & j | No | https://www.mindat.org/min-42718.html |
| | | lvory | Dyed (occasionally) | D/ <mark>SC</mark> | Unstable | 6.1. 6.2. a, c, f, i, j & k | No | https://www.mindat.org/min-42718.html |
| | | lvory | Near-colourless surface waxing (occasionally) | W/ <mark>SC</mark> | Unstable | 6.1. 6.2. a, c, f, i, j & k | No | https://www.mindat.org/min-42718.html |

| | Nomenclature | | Tre | eatment | | | | |
|-----------------------|--------------------------|--|---|----------------------------|---|--|--------------------------------|---|
| Material / Species | Variety / type | Called in the trade - Species, variety or Trade (Commercial) name | Possible treatment type, lack of treatment & frequency encountered (see clause 4.2.5.) | Trade code ² | Stability - Variable Stable, or Unstable | Care advice (see Annex A clause 6) | Available as a synthetic | Informative References |
| lvory cont | | lvory | Impregnated with near- colourless plastic or hardened resins (commonly) | I/ <mark>SC</mark> | Unstable | 6.1. 6.2. a, i, j & k | No | https://www.mindat.org/min-42718.html |
| | Elephant lvory | lvory, or Elephant lvory | See ivory above | _ | See ivory above | See ivory above | See ivory above | https://www.mindat.org/min-42718.html https://cites.org/sites/default/files/eng/resourc es/pub/E-lvory-guide.pdf Pedersen M.C., 2015. lvory. The Crowood Press Ltd., 240 pp. (book) |
| | Mammoth Ivory | Mammoth Ivory | See ivory and above | _ | See ivory above | See ivory above | See ivory above | https://www.mindat.org/min-42718.html Pedersen M.C., 2015. Ivory. The Crowood Press Ltd., 240 pp. (book) |
| | Mastodon Ivory | Mastodon Ivory | See ivory and above | _ | See ivory above | See ivory above | See ivory above | https://www.mindat.org/min-42718.html Pedersen M.C., 2015. Ivory. The Crowood Press Ltd., 240 pp. (book) |
| | Teeth (other animals) | lvory (with name of animal) | See ivory and above | _ | See ivory above | See ivory above | See ivory above | https://www.mindat.org/min-42718.html Pedersen M.C., 2015. Ivory. The Crowood Press Ltd., 240 pp. (book) |
| | Odontolite | Odontolite | See ivory and above | _ | See ivory above | See ivory above | See ivory above | https://www.mindat.org/min-32412.html Pedersen M.C., 2015. Ivory. The Crowood Press Ltd., 240 pp. (book) |

| | Nomenclature | | Tre | eatment | | | | |
|-----------------------|----------------|--|---|-----------------------------|---|--|--------------------------------|--|
| Material / Species | Variety / type | Called in the trade - Species, variety or Trade (Commercial) name | Possible treatment type, lack of treatment & frequency encountered (see clause 4.2.5.) | Trade code ² | Stability - Variable Stable, or Unstable | Care advice (see Annex A clause 6) | Available as a synthetic | Informative References |
| Jadeite | | Jadeite, Jadeite-jade | No treatment (commonly) | N | N/A | 6.1. | Yes | https://www.mindat.org/min-2062.html https://www.gia.edu/doc/A-Study-of-the- General-Electric-Synthetic-Jadeite.pdf |
| | | Jadeite, Jadeite-jade | Near-colourless polymer impregnation (commonly) | I/SC | Unstable | 6.1. 6.2. j & k | No | https://www.mindat.org/min-2062.html https://www.gia.edu/doc/Identification-of- Bleached-and-Polymer-Impregnated- Jadeite.pdf |
| | | Jadeite, Jadeite-jade | Polymer and colour impregnation following acid treatment (commonly) | I/SC | Variable | 6.1. 6.2. j & k | No | https://www.mindat.org/min-2062.html https://www.gia.edu/doc/Identification-of- Bleached-and-Polymer-Impregnated- Jadeite.pdf |
| | | Jadeite, or Jadeite- jade. | Dyed (commonly) | D/ <mark>SC</mark> | Unstable | 6.1. 6.2. j & k | No | https://www.mindat.org/min-2062.html |
| | | Jadeite, or Jadeite- jade. | Heated (rarely) | н | Stable | 6.1. | No | https://www.mindat.org/min-2062.html |
| | Chloromelanite | Chloromelanite | No treatment (commonly) | N | N/A | 6.1. | No | https://www.mindat.org/min-1023.html |
| Jadeite cont | | Fei Cui (Chinese specific market terminology) | See jadeite above | See jadeit e above | See jadeite above | See jadeite above | Yes | https://www.mindat.org/min-50397.html |
| Jeremejevite | | Jeremejevite | No treatment (Always) | N | N/A | _ | No | https://www.mindat.org/min-2090.html |

| | Nomenclature | | Tre | atment | | | | |
|-----------------------|--------------------------------|--|---|----------------------------|---|--|--------------------------------|---|
| Material / Species | Variety / type | Called in the trade - Species, variety or Trade (Commercial) name | Possible treatment type, lack of treatment & frequency encountered (see clause 4.2.5.) | Trade code ² | Stability - Variable Stable, or Unstable | Care advice (see Annex A clause 6) | Available as a synthetic | Informative References |
| Jet | | Jet, or Gagat | No treatment (Always) | N/SC | N/A | 6.1. 6.2.a, b, & j | No | https://www.mindat.org/min-9355.html |
| Johachidolite | | Johachidolite | No treatment (Always) | N | N/A | - | No | <u>https://www.mindat.org/min-2101.html</u> |
| Kosmochlor | | Kosmochlor | No treatment (Always) | N | N/A | _ | No | https://www.mindat.org/min-2258.html |
| Kornerupine | | Kornerupine | No treatment (Always) | N | N/A | 6.1. 6.2. a, b, & j | No | https://www.mindat.org/min-2254.html |
| Kyanite | | Kyanite, or Disthene | No treatment (Always) | N | N/A | 6.1. 6.2. a, b, & j | No | https://www.mindat.org/min-2303.html |
| Labradorite | | See Feldspar | — | _ | _ | - | — | https://www.mindat.org/min-2308.html |
| Lapis Lazuli | | Lapis Lazuli, or Lapis | No treatment (Commonly) | N/ <mark>SC</mark> | N/A | 6.1. 6.2. h & j | No | https://www.mindat.org/min-2330.html |
| | | Lapis Lazuli, or Lapis | Surface near-colourless waxing (commonly) | W/ <mark>SC</mark> | Unstable | 6.1. 6.2. h, j & k | No | https://www.mindat.org/min-2330.html |
| | | Lapis Lazuli, or Lapis | Dyed (commonly) | D/ <mark>SC</mark> | Variable | 6.1. 6.2. h, j & k | No | https://www.mindat.org/min-2330.html |
| Lazulite | | Lazulite | No treatment (Always) | N/ <mark>SC</mark> | N/A | 6.1. 6.2. b & j | No | https://www.mindat.org/min-2356.html |
| Lazurite | | Lazurite | No treatment (Always) | N/ <mark>SC</mark> | N/A | 6.1. 6.2. b & j | No | https://www.mindat.org/min-2357.html |
| Lizardite | | See Serpentine | _ | _ | — | _ | — | https://www.mindat.org/min-2425.html |
| Londonite | Londonite- Rhodizite series | Londonite | No treatment (Always) | N | N/A | _ | No | https://www.mindat.org/min-7082.html |

| | Nomenclature | | Tre | eatment | | | | |
|-----------------------|-------------------|--|---|----------------------------|---|--|--------------------------------|---------------------------------------|
| Material / Species | Variety / type | Called in the trade - Species, variety or Trade (Commercial) name | Possible treatment type, lack of treatment & frequency encountered (see clause 4.2.5.) | Trade code ² | Stability - Variable Stable, or Unstable | Care advice (see Annex A clause 6) | Available as a synthetic | Informative References |
| Magnesite | | Magnesite | Dyed (almost always) | D/ <mark>SC</mark> | N/A | | No | https://www.mindat.org/min-2482.html |
| Magnetite | | Magnetite | No treatment (Always) | N | N/A | _ | Yes | https://www.mindat.org/min-2538.html |
| Malachite | | Malachite | No treatment (Commonly) | N/SC | N/A | 6.1. 6.2. a, b, c & j | Few | https://www.mindat.org/min-2550.html |
| | | Malachite | Surface near-colourless waxing (Occasionally) | W/ <mark>SC</mark> | Unstable | 6.1. 6.2. a, b, c, j & k | No | https://www.mindat.org/min-2550.html |
| | | Malachite | Impregnated with near-colourless plastic or hardened resin (rarely) | I/ <mark>SC</mark> | Unstable | 6.1. 6.2. a, b, c, j & k | No | https://www.mindat.org/min-2550.html |
| Maw-sit-sit | | Maw-sit-sit | No treatment (commonly) | N | N/A | 6.1. | No | https://www.mindat.org/min-42915.html |
| Microcline | | See Feldspar | _ | _ | _ | - | - | https://www.mindat.org/min-2704.html |
| Moldavite | | See Tektite | _ | _ | _ | - | _ | https://www.mindat.org/min-10860.html |
| Montebrasite | | See Amblygonite | _ | _ | _ | _ | _ | https://zh.mindat.org/min-2763.html |
| Musgravite | | Musgravite | No treatment (Always) | N | N/A | | No | https://www.gemdat.org/gem-27238.html |
| Obsidian | | Obsidian | No treatment (Always) | N | N/A | 6.1. | No | https://www.mindat.org/min-8519.html |
| | Mahogany Obsidian | Mahogany Obsidian | No treatment (Always) | N | N/A | 6.1. | No | https://www.mindat.org/min-8519.html |

| | Nomenclature | | Tre | eatment | | | | |
|-------------------------|---|--|---|----------------------------|---|--|--------------------------------|--------------------------------------|
| Material / Species | Variety / type | Called in the trade - Species, variety or Trade (Commercial) name | Possible treatment type, lack of treatment & frequency encountered (see clause 4.2.5.) | Trade code ² | Stability - Variable Stable, or Unstable | Care advice (see Annex A clause 6) | Available as a synthetic | Informative References |
| | Sheen Obsidian | Sheen Obsidian | No treatment (Always) | N | N/A | 6.1. | No | https://www.mindat.org/min-8519.html |
| | Snowflake Obsidian | Snowflake Obsidian | No treatment (Always) | N | N/A | 6.1. | No | https://www.mindat.org/min-8519.html |
| | Rainbow Obsidian | Rainbow Obsidian | No treatment (Always) | N | N/A | 6.1. | No | https://www.mindat.org/min-8519.html |
| Oligoclase | | See Feldspar | _ | _ | _ | _ | _ | https://www.mindat.org/min-2976.html |
| Olivine (Forsterite) | Peridot | Peridot | No treatment (commonly) | N/ <mark>SC</mark> | N/A | 6.1. 6.2. e & h | No | https://www.mindat.org/min-7710.html |
| | Peridot | Peridot | near-colourless oil and wax in fissures (rarely) | O/ <mark>SC</mark> | Unstable | 6.1. 6.2. e, h & k | No | https://www.mindat.org/min-7710.html |
| | Peridot | Peridot | Resins or other polymers in fissures (rarely) | RES/S C | Unstable | 6.1. 6.2. e, h & k | No | https://www.mindat.org/min-7710.html |
| | Peridot | Peridot | Filled open fractures with near-colourless hardened resin (rarely) | F/ <mark>SC</mark> | Unstable | 6.1. 6.2. e, h & k | No | https://www.mindat.org/min-7710.html |
| Opal | (Play-of-colour) – may on the basis of body tone/ transparency, or colour be described as: | | _ | _ | _ | _ | _ | https://www.mindat.org/min-3004.html |
| | Black to very dark | Black Opal | No treatment (commonly) | N/ <mark>SC</mark> | N/A | 6.1. 6.2. b, c, d, e & j | Many | https://www.mindat.org/min-3004.html |
| | Black to very dark | Black Opal | Impregnated with plastic or resin (rarely) | I/SC | Unstable | 6.1. 6.2. b, c, d, e, j & k | No | https://www.mindat.org/min-3004.html |

| | Nomenclature | | Tr | eatment | | | | |
|-----------------------|--|--|---|----------------------------|---|--|--------------------------------|--------------------------------------|
| Material / Species | Variety / type | Called in the trade - Species, variety or Trade (Commercial) name | Possible treatment type, lack of treatment & frequency encountered (see clause 4.2.5.) | Trade code ² | Stability - Variable Stable, or Unstable | Care advice (see Annex A clause 6) | Available as a synthetic | Informative References |
| | Black to very dark (transparent to near transparent) | Black Crystal Opal | No treatment (commonly) | N/SC | N/A | 6.1. 6.2. b, c, d, e & j | Many | https://www.mindat.org/min-3004.html |
| | Black to very dark (transparent to near-transparent) | Black Crystal Opal | Impregnated with plastic or resin (rarely) | I/SC | Unstable | 6.1. 6.2. b, c, d, e, j & k | No | https://www.mindat.org/min-3004.html |
| | White | White Opal | No treatment (commonly) | N/ <mark>SC</mark> | N/A | 6.1. 6.2. b, c, d, e & j | Many | https://www.mindat.org/min-3004.html |
| | White | White Opal | Impregnated with plastic or resin (rarely) | I/ <mark>SC</mark> | Unstable | 6.1. 6.2. b, c, d, e, j & k | No | https://www.mindat.org/min-3004.html |
| | White (transparent to near- transparent) | Crystal opal or water opal | No treatment (commonly) | N/ <mark>SC</mark> | N/A | 6.1. 6.2. b, c, d, e & j | Many | https://www.mindat.org/min-3004.html |
| | White (transparent to near- transparent) | Crystal opal or water opal | Impregnated with plastic or resin (rarely) | I/ <mark>SC</mark> | Unstable | 6.1. 6.2. b, c, d, e, j & k | Many | https://www.mindat.org/min-3004.html |
| Opal cont. | Oolitic Opal | Oolitic Opal | No treatment (commonly) | N/SC | N/A | 6.1. 6.2. b, c, d, e & j | No | https://www.mindat.org/min-3004.html |
| | Oolitic Opal | Oolitic Opal | Impregnated with plastic or resin (rarely) | I/SC | Unstable | 6.1. 6.2. b, c, d, e, j & k | No | https://www.mindat.org/min-3004.html |
| | Orange to Red (transparent to translucent) | Fire Opal | No treatment (commonly) | N/ <mark>SC</mark> | N/A | 6.1. 6.2. b, c, d, e & j | No | https://www.mindat.org/min-3004.html |
| | (Attached to ironstone) | Boulder Opal | No treatment (commonly) | N/SC | N/A | 6.1. 6.2. b, c, d, e & j | No | https://www.mindat.org/min-3004.html |

| | Nomenclature | | Tr | eatment | | | | |
|-----------------------|---|--|---|----------------------------|---|--|--------------------------------|--------------------------------------|
| Material / Species | Variety / type | Called in the trade - Species, variety or Trade (Commercial) name | Possible treatment type, lack of treatment & frequency encountered (see clause 4.2.5.) | Trade code ² | Stability - Variable Stable, or Unstable | Care advice (see Annex A clause 6) | Available as a synthetic | Informative References |
| | (Attached to ironstone) | Boulder Opal | Near colourless polymers in voids and fissures (occasionally) | F/SC | Unstable | 6.1. 6.2. b, c, d, e, j & k | No | https://www.mindat.org/min-3004.html |
| | (In matrix) | Matrix Opal | No treatment (commonly) | N/SC | N/A | 6.1. 6.2. b, c, d, e & j | No | https://www.mindat.org/min-3004.html |
| | (In matrix) | Matrix Opal | Sugar / acid treatment (commonly) | D/ <mark>SC</mark> | Stable | 6.1. 6.2. b, c, d, e, j & k | No | https://www.mindat.org/min-3004.html |
| | Hydrophane | Hydrophane | No treatment (Rarely) | N/SC | N/A | 6.1. 6.2. b, c, d, e & j | No | https://www.mindat.org/min-3004.html |
| | Hydrophane | Hydrophane | Near colourless polymers in voids and fissures (occasionally) | F/SC | Unstable (weight of stone may be unstable) | 6.1. 6.2. b, c, d, e, j & k | No | https://www.mindat.org/min-3004.html |
| | Hydrophane | Hydrophane | Sugar / acid treatment (commonly) | D/ <mark>SC</mark> | Unstable (weight of stone may be unstable) | 6.1. 6.2 .b, c, d, e, j & k | No | https://www.mindat.org/min-3004.html |
| Opal cont. | Hydrophane | Hydrophane | Dying (occasionally) | D/ <mark>SC</mark> | Unstable (weight of stone may be unstable) | 6.1. 6.2. b, c, d, e, j & k | No | https://www.mindat.org/min-3004.html |
| | Hydrophane | Hydrophane | Smoke treatment (occasionally) | D/ <mark>SC</mark> | Unstable (weight of stone may be unstable) | 6.1. 6.2. b, c, d, e, j & k | No | https://www.mindat.org/min-3004.html |
| | (No play-of-colour) Common opal – may on the basis of colour / inclusions, be described as: | Common Opal | No treatment (commonly) | N/SC | N/A | 6.1. 6.2. b, c, d, e & j | Many | https://www.mindat.org/min-3004.html |

| | Nomenclature | | Tr | eatment | | | | |
|-----------------------|--|--|---|----------------------------|---|--|--------------------------------|---|
| Material / Species | Variety / type | Called in the trade - Species, variety or Trade (Commercial) name | Possible treatment type, lack of treatment & frequency encountered (see clause 4.2.5.) | Trade code ² | Stability - Variable Stable, or Unstable | Care advice (see Annex A clause 6) | Available as a synthetic | Informative References |
| | (No play-of-colour) | Common Opal | Impregnated with plastic or resin (rarely) | I/ <mark>SC</mark> | Unstable | 6.1. 6.2. b, c, d, e, j & k | Many | https://www.mindat.org/min-3004.html |
| | White, porcelain- like | Cacholong Opal | No treatment (commonly) | N/ <mark>SC</mark> | N/A | 6.1. 6.2. b, c, d, e & j | Few | https://www.mindat.org/min-3004.html |
| | White, porcelain- like | Cacholong Opal | Impregnated with plastic or resin (rarely) | I/SC | Unstable | 6.1. 6.2. b, c, d, e, j & k | Few | https://www.mindat.org/min-3004.html |
| | Orange to Red | Fire Opal | No treatment (commonly) | N/SC | N/A | 6.1. 6.2. b, c, d, e & j | No | <u>https://www.mindat.org/min-3004.html</u> |
| | Green | Prase Opal, or Green Opal | No treatment (commonly) | N/SC | N/A | 6.1. 6.2. b, c, d, e & j | No | https://www.mindat.org/min-3004.html |
| | Blue to bluish green | Common Opal | No treatment (commonly) | N/SC | N/A | 6.1. 6.2. b, c, d, e, f & j | No | https://www.mindat.org/min-3004.html |
| Opal cont | Blue to bluish green | Common Opal | Irradiated (rarely) | R/ <mark>SC</mark> | Unstable | 6.1. 6.2. b, c, d, e, f & j | No | https://www.mindat.org/min-3004.html |
| | (other colours) | Common Opal with colour prefix | No treatment (commonly) | N/ <mark>SC</mark> | N/A | 6.1. 6.2. b, c, d, e & j | Many | https://www.mindat.org/min-3004.html |
| | (other colours) | Common Opal with colour prefix | Impregnated with plastic or resin (rarely) | I/SC | Unstable | 6.1. 6.2. b, c, d, e, j & k | No | https://www.mindat.org/min-3004.html |
| | With green or black dendritic inclusions | Moss Opal | No treatment (commonly) | N/SC | N/A | 6.1. 6.2. b, c, d, e & j | No | https://www.mindat.org/min-3004.html |

| | Nomenclature | | Tre | eatment | | | | |
|-----------------------|---------------------------------|--|---|----------------------------|---|--|--------------------------------|--|
| Material / Species | Variety / type | Called in the trade - Species, variety or Trade (Commercial) name | Possible treatment type, lack of treatment & frequency encountered (see clause 4.2.5.) | Trade code ² | Stability - Variable Stable, or Unstable | Care advice (see Annex A clause 6) | Available as a synthetic | Informative References |
| | Pseudomorphous after wood | Opalised Wood, or Silicified Wood | No treatment (commonly) | N/SC | N/A | 6.1. 6.2. b, c, d, e & j | No | https://www.mindat.org/min-3004.html https://www.mindat.org/min-9837.html |
| | Pseudomorphous after shells | Opalised Shell, or (animal name) Shell Opal | No treatment (commonly) | N/SC | N/A | 6.1. 6.2. b, c, d, e & j | No | https://www.mindat.org/min-3004.html https://www.mindat.org/min-9828.html |
| | Pseudomorphous after fossils | Opalised fossil, or (animal name) Fossil Opal | No treatment (commonly) | N/SC | N/A | 6.1. 6.2. b, c, d, e & j | No | https://www.mindat.org/min-3004.html |
| Ophicalcite | | Ophicalcite | No treatment (commonly) | N/ <mark>SC</mark> | N/A | 6.1. 6.2. b, c, d, e & j | No | https://www.mindat.org/min-42741.html |
| | | Ophicalcite | Impregnated with wax (occasionally) | I/SC | Unstable | 6.1. 6.2. a, b, c, h, j & k | No | https://www.mindat.org/min-42741.html |
| Ophicalcite cont. | Connemara | | No treatment (Always) | N | N/A | - | No | https://www.mindat.org/min-42809.html |
| | Verd Antique | Verd Antique | No treatment (commonly) | N/SC | N/A | 6.1. 6.2. a, b, c, d, e & j | No | https://www.gemdat.org/gem-42810.html |
| | Verd Antique | Verd Antique | Surface near-colourless waxing (occasionally) | W/SC | Unstable | 6.1. 6.2. a, b, c, h, j & k | No | https://www.gemdat.org/gem-42810.html |
| Orthoclase | | See Feldspar | _ | _ | — | — | — | https://www.mindat.org/min-3026.html |

| | Nomenclature | | Tre | eatment | | | | |
|-----------------------|----------------|--|---|----------------------------|---|--|--------------------------------|--|
| Material / Species | Variety / type | Called in the trade - Species, variety or Trade (Commercial) name | Possible treatment type, lack of treatment & frequency encountered (see clause 4.2.5.) | Trade code ² | Stability - Variable Stable, or Unstable | Care advice (see Annex A clause 6) | Available as a synthetic | Informative References |
| Pearl | | See the CIBJO Pearl Book | _ | _ | _ | - | _ | http://www.cibjo.org/wp- content/uploads/2020/04/20-12-22-Official- Pearl-Book.pdf |
| Painite | | Painite | No treatment (Always) | N | N/A | | No | https://www.mindat.org/min-3063.html |
| Pectolite | | Larimar | No treatment (commonly) | N | N/A | | No | https://www.mindat.org/min-29025.html |
| Petalite | | Petalite | No treatment (Always) | N | N/A | | No | https://www.mindat.org/min-3171.html |
| Pezzottaite | | Pezzottaite | No treatment (Always) | N | N/A | 6.1. | No | https://www.mindat.org/min-25652.html |
| | | Pezzottaite Cat's eye | No treatment (Always) | N | N/A | 6.1. | No | https://www.mindat.org/min-25652.html |
| Phenakite | | Phenakite | No treatment (commonly) | N | N/A | 6.1. | No | https://www.mindat.org/min-3188.html |
| Phenakite | | Phenakite | Irradiated to produce brown (occasionally) | R/ <mark>SC</mark> | Stable | 6.1. | No | https://www.mindat.org/min-3188.html |
| Phosphophyllite | | Phosphophyllite | No treatment (Always) | N | N/A | | No | https://www.mindat.org/min-3181.html |
| Pollucite | | Pollucite | No treatment (Always) | N | N/A | | No | https://www.mindat.org/min-3255.html |
| Prehnite | | Prehnite | No treatment (Always) | N | N/A | 6.1. | No | https://www.mindat.org/min-3277.html |
| Purpurite | | Purpurite | No treatment (Always) | N | N/A | N/A | No | https://www.mindat.org/min-3311.html |

| | Nomenclature | | Tre | eatment | | | | |
|--------------------------------------|------------------------------|--|---|----------------------------|---|--|--------------------------------|--------------------------------------|
| Material / Species | Variety / type | Called in the trade - Species, variety or Trade (Commercial) name | Possible treatment type, lack of treatment & frequency encountered (see clause 4.2.5.) | Trade code ² | Stability - Variable Stable, or Unstable | Care advice (see Annex A clause 6) | Available as a synthetic | Informative References |
| Pyrite | | Pyrite | No treatment (Always) | N | N/A | 6.1. | No | https://www.mindat.org/min-3314.html |
| Pyrope | | See Garnet | _ | _ | _ | _ | _ | https://www.mindat.org/min-3321.html |
| Pyrophyllite | | Pyrophyllite | No treatment (Always) | N/SC | N/A | 6.1. 6.2. a & j | No | https://www.mindat.org/min-3323.html |
| Quartz (macro- crystalline) | | | _ | _ | _ | — | _ | https://www.mindat.org/min-3337.html |
| | Amethyst | Amethyst | No treatment (Commonly) | N/ <mark>SC</mark> | Colour is unstable in some stones | 6.1. 6.2. f | Many | https://www.mindat.org/min-198.html |
| | Amethyst | Amethyst | Heated (occasionally) | н | Stable | 6.1. | Many | https://www.mindat.org/min-198.html |
| | Amethyst | Amethyst | Near colourless oils and wax in fissures (occasionally) | O/ <mark>SC</mark> | Unstable | 6.1. 6.2. j, k | No | https://www.mindat.org/min-198.html |
| | Amethyst | Amethyst | Resins or other polymers in fissures (Rarely) | RES/ <mark>S</mark> C | Unstable | 6.1. 6.2. j, k | No | https://www.mindat.org/min-198.html |
| Quartz (macro- crystalline) cont. | Amethyst-Citrine bicolour | Ametrine | No treatment (commonly) | N/SC | N/A | 6.1. | Some | https://www.mindat.org/min-7606.html |
| | Amethyst-Citrine bicolour | Ametrine | Heated Citrine, (rarely) | н | Stable | 6.1. | Rare | https://www.mindat.org/min-7606.html |
| | Amethyst-Milky Quartz | Amethyst-Milky Quartz | No treatment (Almost always) | N | N/A | 6.1. | No | https://www.mindat.org/min-198.html |
| | Smoky Quartz | Smoky Quartz, or Cairngorm, or Brown Quartz | No treatment (Rarely) | N | N/A | 6.1. | No | https://www.mindat.org/min-3689.html |

| | Nomenclature | | Tre | eatment | | | | |
|-------------------------------------|--|--|---|----------------------------|---|--|--------------------------------|---------------------------------------|
| Material / Species | Variety / type | Called in the trade - Species, variety or Trade (Commercial) name | Possible treatment type, lack of treatment & frequency encountered (see clause 4.2.5.) | Trade code ² | Stability - Variable Stable, or Unstable | Care advice (see Annex A clause 6) | Available as a synthetic | Informative References |
| | Smoky Quartz | Smoky Quartz, or Cairngorm, or Brown Quartz | Irradiated (commonly) | R | Stable | 6.1. | Many | https://www.mindat.org/min-3689.html |
| | (dark brown to black) | Morion | No treatment (Rarely) | Ν | N/A | 6.1. | Some | https://www.mindat.org/min-6270.html |
| | (dark brown to black) | Morion | Irradiated (commonly) | R | Stable | 6.1. | No | https://www.mindat.org/min-6270.html |
| | Citrine | Citrine, or Yellow Quartz | No treatment (Rarely) | N | N/A | 6.1. | Many | https://www.mindat.org/min-1054.html |
| | Citrine | Citrine, or Yellow Quartz | Heated (<mark>almost always</mark>) | н | Stable | 6.1. | No | https://www.mindat.org/min-1054.html |
| | Prasiolite | Prasiolite, or Green Quartz | No treatment (Rarely) | N | N/A | 6.1. | Many | https://www.mindat.org/min-40112.html |
| | Prasiolite | Prasiolite, or Green Quartz | Heated (commonly) | н | Stable | 6.1. | No | https://www.mindat.org/min-40112.html |
| | (other colours) | Quartz with colour prefix | Irradiated (commonly) | R/ <mark>SC</mark> | Variable | 6.1. 6.2. f | Some | https://www.mindat.org/min-3337.html |
| | Rock Crystal | Rock Crystal | No treatment (Always) | N | N/A | 6.1. | Many | https://www.mindat.org/min-6128.html |
| Quartz (macro- crystalline) cont | Rose Quartz | Rose Quartz | No treatment (Always) | N | N/A | 6.1. | Some | https://www.mindat.org/min-3456.html |
| | Aventurine Quartz | Aventurine Quartz | No treatment (Always) | Ν | N/A | 6.1. | No | https://www.mindat.org/min-436.html |
| | Blue Quartz (colour due to inclusions of dumortierite) | Blue Quartz, or Dumortierite Quartz | No treatment (Always) | N | N/A | 6.1. | Many | https://www.mindat.org/min-3337.html |
| | Iris Quartz | Iris Quartz | No treatment (Occasionally) | Ν | N/A | 6.1. | Some | https://www.mindat.org/min-42133.html |
| | Iris Quartz | Iris Quartz | Heated and quenched (occasionally) | H/ <mark>SC</mark> | Stable | 6.1. 6.2. j | Some | https://www.mindat.org/min-42133.html |

| | Nomenclature | | Tre | eatment | | | | |
|--|---|--|---|----------------------------|---|--|--------------------------------|---|
| Material / Species | Variety / type | Called in the trade - Species, variety or Trade (Commercial) name | Possible treatment type, lack of treatment & frequency encountered (see clause 4.2.5.) | Trade code ² | Stability - Variable Stable, or Unstable | Care advice (see Annex A clause 6) | Available as a synthetic | Informative References |
| | Iris Quartz | Iris Quartz | Dyed (commonly) | D/ <mark>SC</mark> | Unstable | 6.1. 6.2. j & k | No | https://www.mindat.org/min-42133.html |
| | Quartzite | Quartzite | No treatment (Occasionally) | N/ <mark>SC</mark> | N/A | 6.1. 6.2. c | No | https://www.mindat.org/min-51087.html |
| | Quartzite | Quartzite | Dyed (commonly) | D/ <mark>SC</mark> | Unstable | 6.1. 6.2. c, j & k | No | https://www.mindat.org/min-51087.html |
| | Quartzite | Quartzite | Impregnated with near-colourless plastic or hardened resins (occasionally) | I/SC | Unstable | 6.1. 6.2. j & k | No | https://www.mindat.org/min-51087.html |
| | Quartz Cat's-eye | Quartz Cat's-eye | No treatment (Always) | N | N/A | 6.1. | No | https://www.mindat.org/glossary/cat%27s-eye https://www.mindat.org/min-3337.html |
| Quartz (crypto/microcry stalline) | Quartz with inclusions | Rutilated Quartz, Tourmalinated Quartz, etc. | No treatment (Always) | N | N/A | 6.1. | No | https://www.mindat.org/min-3485.html https://www.mindat.org/min-26498.html |
| Quartz (crypto/microcry stalline) cont | Chalcedony or Agate: | | _ | _ | _ | _ | _ | https://www.mindat.org/min-960.html https://www.mindat.org/min-51.html |
| | Chrysoprase (green colour due to inclusions of nickeliferous clay) | Chrysoprase | No treatment (Always) | N | N/A | 6.1. | No | https://www.mindat.org/min-952.html |
| | Chrome Chalcedony (green colour due to chromium) | Chrome Chalcedony, or Mtorolite | No treatment (Always) | N | N/A | 6.1 | No | https://www.mindat.org/min-39291.html https://www.mindat.org/min-27172.html |

| | Nomenclature | | Tre | eatment | | | | |
|--|---|--|---|----------------------------|---|--|--------------------------------|--|
| Material / Species | Variety / type | Called in the trade - Species, variety or Trade (Commercial) name | Possible treatment type, lack of treatment & frequency encountered (see clause 4.2.5.) | Trade code ² | Stability - Variable Stable, or Unstable | Care advice (see Annex A clause 6) | Available as a synthetic | Informative References |
| | Chrysocolla Chalcedony (blue to blue-green colour due to inclusions of chrysocolla) | Chrysocolla Chalcedony | No treatment (Always) | N | N/A | 6.1. | No | https://www.mindat.org/min-1040.html |
| | Cornelian | Cornelian, or Carnelian | No treatment (Occasionally) | N | N/A | 6.1. | No | https://www.mindat.org/min-9333.html https://www.mindat.org/min-9341.html |
| | Cornelian | Cornelian, or Carnelian | Heated (rarely) | н | Stable | 6.1. | No | https://www.mindat.org/min-9333.html https://www.mindat.org/min-9341.html |
| | Cornelian | Cornelian, or Carnelian | Dyed (commonly) | D/ <mark>SC</mark> | Stable | 6.1. 6.2. f | No | https://www.mindat.org/min-9333.html https://www.mindat.org/min-9341.html |
| Quartz (crypto/microcry stalline) cont | Sard | Sard | No treatment (Always) | N | N/A | 6.1. | No | https://www.mindat.org/min-7607.html |
| | Prase | Prase | No treatment (Always) | Ν | N/A | 6.1. | No | https://www.mindat.org/min-6703.html |
| | (other uniform colours) | Agate with colour prefix, or Chalcedony with colour prefix | No treatment (Rarely) | N | N/A | 6.1. | No | https://www.mindat.org/min-960.html https://www.mindat.org/min-51.html |
| | (other uniform colours) | Agate with colour prefix, or Chalcedony with colour prefix | Dyed black (always) | D/ <mark>SC</mark> | Stable | 6.1. | No | https://www.mindat.org/min-g6o.html https://www.mindat.org/min-51.html |

| | Nomenclature | | Tr | eatment | | | | |
|---|---|--|---|----------------------------|---|--|--------------------------------|---|
| Material / Species | Variety / type | Called in the trade - Species, variety or Trade (Commercial) name | Possible treatment type, lack of treatment & frequency encountered (see clause 4.2.5.) | Trade code ² | Stability - Variable Stable, or Unstable | Care advice (see Annex A clause 6) | Available as a synthetic | Informative References |
| | | Agate with colour prefix, or Chalcedony with colour prefix | Dyed blue (always) | D/SC | Variable | 6.1. 6.2. f | No | https://www.mindat.org/min-960.html https://www.mindat.org/min-51.html |
| | | Agate with colour prefix, or Chalcedony with colour prefix | Dyed green (always) | D/SC | Variable | 6.1. 6.2. f | No | https://www.mindat.org/min-960.html https://www.mindat.org/min-51.html |
| | (other uniform colours) | Agate with colour prefix, or Chalcedony with colour prefix | Dyed (commonly) | D/SC | Unstable | 6.1. 6.2. f | No | https://www.mindat.org/min-960.html https://www.mindat.org/min-51.html |
| | Banded Agate | Banded Agate | No treatment (rarely) | Ν | N/A | 6.1. | No | https://www.mindat.org/min-51.html |
| | Banded Agate | Banded Agate | Dyed (commonly) | D/ <mark>SC</mark> | Fairly stable | 6.1. 6.2. f & k | No | https://www.mindat.org/min-51.html |
| Quartz (crypto/microcry stalline) cont. | Fire Agate | Fire Agate | No treatment (commonly) | N | N/A | 6.1. | No | https://www.mindat.org/min-7601.html |
| | Iris Agate | Iris Agate | No treatment (commonly) | N | N/A | 6.1. | No | https://www.mindat.org/min-7610.html |
| | Moss Agate | Moss Agate, or Dendritic Agate | No treatment (Always) | N | N/A | 6.1. | No | https://www.mindat.org/min-2791.html |
| | Onyx (straight layers of black and white) | Onyx | Dyed (commonly) | D/SC | Stable | 6.1. | No | https://www.mindat.org/min-2999.html |
| | Onyx (black) | Onyx | Dyed (always) | D/ <mark>SC</mark> | Stable | 6.1. | No | https://www.mindat.org/min-2999.html |
| | Sardonyx | Sardonyx | No treatment (commonly) | Ν | N/A | 6.1. | No | https://www.mindat.org/min-7604.html |

| | Nomenclature | | Tro | eatment | | | | |
|---|--------------------------------|--|---|----------------------------|---|--|--------------------------------|--|
| Material / Species | Variety / type | Called in the trade - Species, variety or Trade (Commercial) name | Possible treatment type, lack of treatment & frequency encountered (see clause 4.2.5.) | Trade code ² | Stability - Variable Stable, or Unstable | Care advice (see Annex A clause 6) | Available as a synthetic | Informative References |
| | Jasper: | | _ | _ | _ | — | _ | https://www.mindat.org/min-2082.html |
| | Heliotrope | Heliotrope, or Bloodstone | No treatment (Always) | N | N/A | 6.1. | No | https://www.mindat.org/min-1851.html https://www.mindat.org/min-7616.html |
| | Multicoloured Jasper | Multicoloured Jasper | No treatment (Rarely) | N | N/A | 6.1. | No | https://www.mindat.org/min-2082.html |
| | Orbicular Jasper | Orbicular Jasper | No treatment (Rarely) | Ν | N/A | 6.1. | No | https://www.mindat.org/min-27171.html |
| | Jasper, other colours | Jasper with colour prefix | No treatment (Rarely) | N | N/A | 6.1. | No | https://www.mindat.org/min-2082.html |
| | Jasper, other colours | Jasper with colour prefix | Dyed (commonly) | D/ <mark>SC</mark> | Unstable | 6.1. 6.2. f & k | No | https://www.mindat.org/min-2082.html |
| Quartz (crypto/microcry stalline) cont. | Falcon's-eye | Falcon's-eye, or Hawk's-eye | No treatment (commonly) | N | N/A | 6.1. | No | https://www.mindat.org/min-38866.html |
| | Tiger's-eye | Tiger's-eye | No treatment (Occasionally) | Ν | N/A | 6.1. | No | https://www.mindat.org/min-3960.html |
| | Tiger's-eye | Tiger's-eye | Heated (commonly) | н | Stable | 6.1. | No | https://www.mindat.org/min-3960.html |
| | Tiger's-eye | Tiger's-eye | Dyed (commonly) | D/ <mark>SC</mark> | Unstable | 6.1. 6.2. f, j & k | No | https://www.mindat.org/min-3960.html |
| | Pseudomorphous after Wood | Petrified Wood, or Silicified Wood | No treatment (Always) | Ν | N/A | 6.1. | No | https://www.mindat.org/min-8018.html |
| Rhodizite | Londonite- Rhodizite series | Rhodizite | No treatment (Always) | N | N/A | | No | https://www.mindat.org/min-3405.html |
| Rhodochrosie | | Rhodochrosite | No treatment (Always) | N/ <mark>SC</mark> | N/A | 6.1. 6.2. a, b, h & j | No | https://www.mindat.org/min-3406.html |

| | Nomenclature | | Tre | eatment | | | | |
|--|----------------|--|---|----------------------------|---|--|--------------------------------|---------------------------------------|
| Material / Species | Variety / type | Called in the trade - Species, variety or Trade (Commercial) name | Possible treatment type, lack of treatment & frequency encountered (see clause 4.2.5.) | Trade code ² | Stability - Variable Stable, or Unstable | Care advice (see Annex A clause 6) | Available as a synthetic | Informative References |
| Rhodonite | | Rhodonite | No treatment (Always) | N/ <mark>SC</mark> | N/A | 6.1. 6.2. a & b | No | https://www.mindat.org/min-3407.html |
| Sapphirine | | Sapphirine | No treatment (Always) | N | N/A | | No | https://www.mindat.org/min-3531.html |
| Saussurite | | Saussurite | No treatment (Always) | N | N/A | | No | https://www.mindat.org/min-26894.html |
| Scapolite | | Scapolite | No treatment (Commonly) | N | N/A | 6.1. | No | https://www.mindat.org/min-8778.html |
| | | Scapolite | Irradiated to purple and violet (unknown) | R/ <mark>SC</mark> | Unstable | 6.1. 6.2. f | No | https://www.mindat.org/min-8778.html |
| Scheelite | | Scheelite | No treatment (Always) | N | N/A | | Yes | https://www.mindat.org/min-3560.html |
| Serendibite | | Serendibite | No treatment (Always) | Ν | N/A | | No | https://www.mindat.org/min-3623.html |
| Serpentine (group of) Antigorite, Chrysotile and Lizardite | | Serpentine | No treatment (Commonly) | N | N/A | 6.1. 6.2. a, h & j | No | https://www.mindat.org/min-7484.html |
| | | | Surface near-colourless waxing (commonly) | W/ <mark>SC</mark> | Unstable | 6.1. 6.2. a, h, j & k | No | https://www.mindat.org/min-7484.html |
| | | | Dyed (commonly) | D/ <mark>SC</mark> | Unstable | 6.1. 6.2. a, f, h, j & k | No | https://www.mindat.org/min-7484.html |

| | Nomenclature | | Tre | eatment | | | | |
|-----------------------|-----------------------------------|--|---|--|---|--|---|---------------------------------------|
| Material / Species | Variety / type | Called in the trade - Species, variety or Trade (Commercial) name | Possible treatment type, lack of treatment & frequency encountered (see clause 4.2.5.) | Trade code ² | Stability - Variable Stable, or Unstable | Care advice (see Annex A clause 6) | Available as a synthetic | Informative References |
| | | Verd Antique | See Serpentine (group of) above | See Serpe -ntine (grou- p of) above | See Serpentine (group of) above | See Serpentine (group of) above | See Serpentin e (group of) above | https://www.mindat.org/min-42810.html |
| Antigorite | | Antigorite | See Serpentine (group of) above | See Serpe -ntine (grou- p of) above | See Serpentine (group of) above | See Serpentine (group of) above | See Serpentin e (group of) above | https://www.mindat.org/min-26o.html |
| | | Williamsite | See Serpentine (group of) above | See Serpe -ntine (grou- p of) above | See Serpentine (group of) above | 6.1. 6.2. a, h & j | See Serpentin e (group of) above | https://www.mindat.org/min-27232.html |
| | Bowenite (green or blue green) | Bowenite | See Serpentine (group of) above | See Serpe -ntine (grou- p of) above | See Serpentine (group of) above | See Serpentine (group of) above | See Serpentin e (group of) above | https://www.mindat.org/min-744.html |
| Chrysotile | | Chrysotile | See Serpentine (group of) above | See Serpe -ntine (grou -p of) abov e | See Serpentine (group of) above | See Serpentine (group of) above | See Serpentin e (group of) above | https://www.gemdat.org/gem-975.html |

| | Nomenclature | | Tro | eatment | | | | |
|-----------------------|-------------------|--|---|--|---|--|---|---------------------------------------|
| Material / Species | Variety / type | Called in the trade - Species, variety or Trade (Commercial) name | Possible treatment type, lack of treatment & frequency encountered (see clause 4.2.5.) | Trade code ² | Stability - Variable Stable, or Unstable | Care advice (see Annex A clause 6) | Available as a synthetic | Informative References |
| Lizardite | | Lizardite | See Serpentine (group of) above | See Serpe -ntine (grou -p of) abov e | See Serpentine (group of) above | See Serpentine (group of) above | See Serpentin e (group of) above | https://www.mindat.org/min-2425.html |
| Shell | | Shell, or Shell with name of animal | No treatment (Occasionally) | N/ <mark>SC</mark> | N/A | 6.1. 6.2. a, c, f, h, & j | No | https://www.mindat.org/min-42812.html |
| Shell cont. | | Shell, or Shell with name of animal | Dyed (commonly) | D/ <mark>SC</mark> | Unstable | 6.1. 6.2. a, c, f, h, j & k | No | https://www.mindat.org/min-42812.html |
| | Mother of Pearl | Mother of Pearl | No treatment (Occasionally) | N/ <mark>SC</mark> | N/A | 6.1. 6.2. a, c, h & j | No | https://www.mindat.org/min-42812.html |
| | Mother of Pearl | Mother of Pearl | Dyed (commonly) | D/ <mark>SC</mark> | Unstable | 6.1. 6.2. a, c, f, h j & k | No | https://www.mindat.org/min-42812.html |
| Sillimanite | | Sillimanite | No treatment (almost always) | N/ <mark>SC</mark> | N/A | 6.1. 6.2. j | No | https://www.mindat.org/min-3662.html |
| | | Sillimanite | Dyed (rarely) | D/ <mark>SC</mark> | Unstable | 6.1. 6.2. j & k | No | https://www.mindat.org/min-3662.html |
| | (with chatoyancy) | Sillimanite Cat's-eye | No treatment (almost always) | N/ <mark>SC</mark> | N/A | 6.1. 6.2. j | No | https://www.gemdat.org/gem-3662.html |
| Sinhalite | | Sinhalite | No treatment (Always) | N/ <mark>SC</mark> | N/A | 6.1. 6.2. j | No | https://www.mindat.org/min-3672.html |
| Smithsonite | | Smithsonite | No treatment (Always) | N/ <mark>SC</mark> | N/A | 6.1. 6.2. a, b, h j | No | https://www.mindat.org/min-3688.html |

| | Nomenclature | | Tre | eatment | | | | |
|-----------------------|-----------------|--|---|----------------------------|---|--|--------------------------------|---|
| Material / Species | Variety / type | Called in the trade - Species, variety or Trade (Commercial) name | Possible treatment type, lack of treatment & frequency encountered (see clause 4.2.5.) | Trade code ² | Stability - Variable Stable, or Unstable | Care advice (see Annex A clause 6) | Available as a synthetic | Informative References |
| | (blue to green) | Smithsonite, or Bonamite | No treatment (Always) | N/SC | N/A | 6.1. 6.2. a, b, h & j | No | https://www.mindat.org/min-3688.html https://www.mindat.org/min-30508.html |
| Sodalite | | Sodalite | No treatment (commonly) | N/SC | N/A | 6.1. 6.2. j | No | https://www.mindat.org/min-3701.html |
| | | Sodalite | Dyed (rarely) | D/ <mark>SC</mark> | Unstable | 6.1. 6.2. b, f, j & k | No | https://www.mindat.org/min-3701.html |
| Spessartine | | See garnet | _ | | — | — | - | https://www.mindat.org/min-3725.html |
| Sphalerite | | Sphalerite, or Zinc Blende | No treatment (Always) | N/ <mark>SC</mark> | N/A | 6.1. 6.2. a & j | No | https://www.mindat.org/min- <u>3727.html</u> |
| Sphene | | See Titanite | _ | _ | _ | _ | _ | https://www.mindat.org/min-6440.html https://www.mindat.org/min-3977.html |
| Spinel (group of) | | | _ | _ | _ | _ | _ | https://www.mindat.org/min-29156.html |
| Spinel | | Spinel (with colour prefix) | No treatment (commonly) | N | N/A | 6.1. | Yes | https://www.mindat.org/min-3729.html |
| | | Spinel (with colour prefix) | Heated (occasionally) | н | Stable | 6.1. | Yes | https://www.mindat.org/min-3729.html |
| | Cobalt Spinel | Cobalt Spinel | No treatment (rarely) | N | N/A | | No | https://www.mindat.org/min-3729.html |
| | Gahnospinel | Gahnospinel | No treatment (Always) | N | N/A | 6.1. | No | https://www.mindat.org/min-1633.html |
| | Pleonaste | Pleonaste, or Black Spinel | No treatment (Always) | N | N/A | 6.1. | No | https://www.mindat.org/min-6684.html |
| Gahnite | | Gahnite | No treatment (Always) | N | N/A | 6.1. | No | https://www.mindat.org/min-1632.html |

| | Nomenclature | | Tre | eatment | | | | |
|-----------------------|--|--|---|----------------------------|---|--|--------------------------------|--|
| Material / Species | Variety / type | Called in the trade - Species, variety or Trade (Commercial) name | Possible treatment type, lack of treatment & frequency encountered (see clause 4.2.5.) | Trade code ² | Stability - Variable Stable, or Unstable | Care advice (see Annex A clause 6) | Available as a synthetic | Informative References |
| Spodumene | Kunzite | Kunzite | No treatment (Rarely) | N/ <mark>SC</mark> | Unstable | 6.1. 6.2. b, f & j | No | https://www.mindat.org/min-3733.html https://www.mindat.org/min-2289.html |
| | Kunzite | Kunzite | Heated, (commonly) | H/ <mark>SC</mark> | Unstable | 6.1. 6.2. b, f & j | No | https://www.mindat.org/min-3733.html https://www.mindat.org/min-2289.html |
| | Kunzite | Kunzite | Irradiated (commonly) | R/ <mark>SC</mark> | Unstable | 6.1. 6.2. b, f & j | No | https://www.mindat.org/min-3733.html https://www.mindat.org/min-2289.html |
| Spodumene cont. | Hiddenite (green colour due to chromium) | Hiddenite | No treatment (Always) | N/ <mark>SC</mark> | Unstable | 6.1. 6.2. b & j | No | https://www.mindat.org/min-3733.html https://www.mindat.org/min-7740.html |
| | (other colours) | Spodumene with colour prefix | No treatment (commonly) | N/SC | N/A | 6.1. 6.2. b, f & j | No | https://www.mindat.org/min-3733.html |
| | (other colours) | Spodumene with colour prefix | Green produced by irradiation (occasionally) | R/SC | Unstable | 6.1. 6.2. b, f & j | No | https://www.mindat.org/min-3733.html |
| Sugilite | | Sugilite | No treatment (Always) | N/SC | N/A | 6.1. 6.2. j | No | https://www.mindat.org/min-3822.html |
| Taaffeite | | Taaffeite | No treatment (Always) | N/SC | N/A | 6.1. 6.2. j | No | https://www.mindat.org/min-27242.html |
| Talc | Steatite | Steatite, or Soapstone | No treatment (commonly) | N/SC | N/A | 6.1. 6.2. a, b, c & j | No | https://www.mindat.org/min-3875.html https://www.mindat.org/min-3755.html https://www.mindat.org/min-9348.html |

| | Nomenclature | | Tre | eatment | | | | |
|-----------------------|----------------|--|---|----------------------------|---|--|--------------------------------|--|
| Material / Species | Variety / type | Called in the trade - Species, variety or Trade (Commercial) name | Possible treatment type, lack of treatment & frequency encountered (see clause 4.2.5.) | Trade code ² | Stability - Variable Stable, or Unstable | Care advice (see Annex A clause 6) | Available as a synthetic | Informative References |
| | Steatite | Steatite, or Soapstone | Dyed (rarely) | D/ <mark>SC</mark> | Unstable | 6.1. 6.2. a, b, c, j & k | No | https://www.mindat.org/min-3875.html https://www.mindat.org/min-3755.html https://www.mindat.org/min-9348.html |
| Tantalite-(Mn) | | Manganotantalite | No treatment (Always) | N | N/A | | No | https://www.mindat.org/min-2522.html |
| Tektite | | Tektite | No treatment (Always) | N | N/A | 6.1. | No | https://www.mindat.org/min-10859.html |
| | Moldavite | Moldavite | No treatment (Always) | N | N/A | 6.1. | No | https://www.mindat.org/min-10860.html |
| Thomsonite | | Thomsonite | No treatment (Always) | Ν | N/A | | No | https://www.mindat.org/min-28896.html |
| Titanite | | Titanite, or Sphene | No treatment (Always) | N/SC | N/A | 6.1. 6.2. j | No | https://www.mindat.org/min-3977.html https://www.mindat.org/min-6440.html |
| Topaz | | Topaz | No treatment (Rarely) | N/ <mark>SC</mark> | N/A | 6.1. 6.2. b & j | No | https://www.mindat.org/min-3996.html |
| | | Topaz | Heated to produce pink (commonly) | H/ <mark>SC</mark> | Stable | 6.1. 6.2. b & j | No | https://www.mindat.org/min-3996.html |
| | | Topaz | Irradiated and heated to produce blue (almost always) | R/ <mark>SC</mark> | Stable | 6.1. 6.2. b & j | No | https://www.mindat.org/min-3996.html https://www.gia.edu/doc/Irradiated-Topaz- and-Radioactivity.pdf |

| | Nomenclature | | Tre | eatment | | | | |
|-----------------------|-------------------|--|---|----------------------------|--|--|--------------------------------|--|
| Material / Species | Variety / type | Called in the trade - Species, variety or Trade (Commercial) name | Possible treatment type, lack of treatment & frequency encountered (see clause 4.2.5.) | Trade code ² | Stability - Variable Stable, or Unstable | Care advice (see Annex A clause 6) | Available as a synthetic | Informative References |
| | | Topaz | Irradiated to yellow and orange (occasionally) | R/ <mark>SC</mark> | Unstable | 6.1. 6.2. b, f & j | No | https://www.mindat.org/min-3996.html https://www.gia.edu/doc/Irradiated-Topaz- and-Radioactivity.pdf |
| | | Topaz | Irradiated to produce green (commonly) | R/ <mark>SC</mark> | Unstable | 6.1. 6.2. b, f & j | No | https://www.mindat.org/min-3996.html https://www.gia.edu/doc/Irradiated-Topaz- and-Radioactivity.pdf |
| Topaz cont. | | Тораz | Diffused to produce green (occasionally) | U/ <mark>SC</mark> | Stable (without re-cutting or re- polishing) | 6.1. 6.2. b, j & m | No | https://www.mindat.org/min-3996.html https://www.gia.edu/doc/Summer-2008-Gems- Gemology-Coloring-Topaz-Coating-Diffusion- Processes-X-Ray-Photoemission-Study.pdf |
| | | Topaz | Coated with very thin layers to provide various colours and to add special effects (commonly) | C/ <mark>SC</mark> | Unstable | 6.1. 6.2. b, f & j | No | https://www.mindat.org/min-3996.html https://www.gia.edu/doc/Summer-2008-Gems- Gemology-Coloring-Topaz-Coating-Diffusion- Processes-X-Ray-Photoemission-Study.pdf |
| Tortoiseshell | | Tortoiseshell | No treatment (commonly) | N/ <mark>SC</mark> | N/A | 6.1. 6.2. a, & c | No | https://www.gemdat.org/gem-42814.html |
| Tourmaline Group | Achroite | Colourless Tourmaline, or Achroite | No treatment (Always) | N | N/A | 6.1. | No | https://www.mindat.org/min-4003.html |
| | Canary tourmaline | Yellow tourmaline, or Canary tourmaline | Heated to produce yellow (almost always) | н | Stable | 6.1. | No | https://www.mindat.org/min-1364.html |

| | Nomenclature | | Tre | eatment | | | | |
|-----------------------|---|--|---|----------------------------|---|--|--------------------------------|--|
| Material / Species | Variety / type | Called in the trade - Species, variety or Trade (Commercial) name | Possible treatment type, lack of treatment & frequency encountered (see clause 4.2.5.) | Trade code ² | Stability - Variable Stable, or Unstable | Care advice (see Annex A clause 6) | Available as a synthetic | Informative References |
| | Rubellite/ Pink to red | Pink Tourmaline, or Red Tourmaline, or Rubellite | No treatment (Rarely) | Ν | N/A | 6.1. | No | https://www.mindat.org/min-3472.html |
| | Rubellite/ Pink to red | Pink Tourmaline, or Red Tourmaline, or Rubellite | Heated (occasionally) | н | Stable | 6.1. | No | https://www.mindat.org/min-3472.html |
| | Rubellite/ Pink to red | Pink Tourmaline, or Red Tourmaline, or Rubellite | Irradiated (commonly) | R | Stable | 6.1. | No | https://www.mindat.org/min-3472.html |
| Tourmaline cont. | Rubellite/ Pink to red | Pink Tourmaline, or Red Tourmaline, or Rubellite | Near-colourless oils and wax in fissures (occasionally) | O/ <mark>SC</mark> | Unstable | 6.1. 6.2. j&k | No | https://www.mindat.org/min-3472.html |
| | Rubellite/ Pink to red | Pink Tourmaline, or Red Tourmaline, or Rubellite | Resins or other polymers in fissures (commonly) | RES/S C | Unstable | 6.1. 6.2. j & k | No | https://www.mindat.org/min-3472.html |
| | Green due to chromium and/or vanadium | Chrome Tourmaline | No treatment (commonly) | N | N/A | 6.1. | No | https://www.mindat.org/min-9904.html |
| | Verdelite | Green Tourmaline, verdelith or verdelite | No treatment (commonly) | N | N/A | 6.1. | No | https://www.mindat.org/min-4003.html https://www.mindat.org/min-4169.html |
| | Verdelite | Green Tourmaline, verdelith or verdelite | Heated (commonly) | н | Stable | 6.1. | No | https://www.mindat.org/min-4003.html https://www.mindat.org/min-4169.html |
| | Verdelite | Green Tourmaline, verdelith or verdelite | Near-colourless oils and wax in fissures (rarely) | O/SC | Unstable | 6.1. 6.2. j & k | No | https://www.mindat.org/min-4003.html https://www.mindat.org/min-4169.html |

| | Nomenclature | | Tre | eatment | | | | |
|-----------------------|--|--|---|----------------------------|---|--|--------------------------------|---|
| Material / Species | Variety / type | Called in the trade - Species, variety or Trade (Commercial) name | Possible treatment type, lack of treatment & frequency encountered (see clause 4.2.5.) | Trade code ² | Stability - Variable Stable, or Unstable | Care advice (see Annex A clause 6) | Available as a synthetic | Informative References |
| | Verdelite | Green Tourmaline, verdelith or verdelite | Resins or other polymers in fissures (rarely) | RES/S C | Unstable | 6.1. 6.2. j & k | No | https://www.mindat.org/min-4003.html https://www.mindat.org/min-4169.html |
| | Verdelite | Green Tourmaline, verdelith or verdelite | Cavities and fractures filled with near- colourless hardened substances (rarely) | F/SC | Unstable | 6.1. 6.2. j & k | No | https://www.mindat.org/min-4003.html https://www.mindat.org/min-4169.html |
| Tourmaline cont | Paraiba Tourmaline (Green to blue due to copper) | Paraiba Tourmaline | No treatment (Rarely) | N | N/A | 6.1. | No | https://www.mindat.org/min-29238.html https://static1.squarespace.com/static/sbfbb7e 6cc8fed3bb9293bf3/t/sbfe92a90e2e72555d61e ec3/1543410345434/LMHC+Information+Sheet 6_V7_2012.pdf |
| | Paraiba Tourmaline (Green to blue due to copper) | Paraiba Tourmaline | Heated (commonly) | н | Stable | 6.1. | No | https://www.mindat.org/min-29238.html https://static1.squarespace.com/static/sbfbbze 6cc8fed3bb9293bf3/t/sbfe92a90e2e72555d61e ec3/1543410345434/LMHC+Information+Sheet 6_V7_2012.pdf |
| | Paraiba Tourmaline (Green to blue due to copper) | Paraiba Tourmaline | Filling of fissures with near-colourless oils and wax (commonly) | O/SC | Unstable | 6.1. 6.2. j & k | No | https://www.mindat.org/min-29238.html https://static1.squarespace.com/static/sbfbbze 6cc8fed3bb9293bf3/t/sbfe92a90e2e72555d61e ec3/1543410345434/LMHC+Information+Sheet 6V7_2012.pdf |

| | Nomenclature | | Tre | eatment | | | | |
|------------------------|--|--|--|----------------------------|---|--|--------------------------------|---|
| Material / Species | Variety / type | Called in the trade - Species, variety or Trade (Commercial) name | Possible treatment type, lack of treatment & frequency encountered (see clause 4.2.5.) | Trade code ² | Stability - Variable Stable, or Unstable | Care advice (see Annex A clause 6) | Available as a synthetic | Informative References |
| | Paraiba Tourmaline (Green to blue due to copper) | Paraiba Tourmaline | Resins or other polymers in fissures (commonly) | RES/S C | Unstable | 6.1. 6.2. j & k | No | https://www.mindat.org/min-29238.html https://static1.squarespace.com/static/sbfbb7e 6cc8fed3bb9293bf3/t/sbfe92a90e2e72555d61e ec3/1543410345434/LMHC+Information+Sheet 6V7_2012.pdf |
| Tourmaline group cont. | Paraiba Tourmaline (Green to blue due to copper) | Paraiba Tourmaline | Filling of cavities and fractures with near- colourless hardened substances (occasionally) | F/SC | Unstable | 6.1. 6.2. j & k | No | https://www.mindat.org/min-29238.html https://static1.squarespace.com/static/sbfbb7e 6cc8fed3bb9293bf3/t/sbfe92a90e2e72555d61e ec3/1543410345434/LMHC+Information+Sheet 6_V7_2012.pdf |
| | Indigolite or Indicolite | Blue Tourmaline, or Indicolite | No treatment (commonly) | N | N/A | 6.1. | No | https://www.mindat.org/min-2027.html |
| | Indigolite or Indicolite | Blue Tourmaline, or Indicolite | Heated (commonly) | н | Stable | 6.1. | No | https://www.mindat.org/min-2027.html |
| | Indigolite or Indicolite | Blue Tourmaline, or Indicolite | Near-colourless oils and wax in fissures (occasionally) | O/ <mark>SC</mark> | Unstable | 6.1. 6.2. j & k | No | https://www.mindat.org/min-2027.html |
| | Indigolite or Indicolite | Blue Tourmaline, or Indicolite | Resins or other polymers in fissures (commonly) | RES/S C | Unstable | 6.1. 6.2. j & k | No | <u>https://www.mindat.org/min-2027.html</u> |
| | (other colours) | Tourmaline with colour prefix | No treatment (Occasionally) | N | N/A | 6.1. | No | https://www.mindat.org/min-4003.html |
| | (other colours) | Tourmaline with colour prefix | Heated to produce yellow/orange (rarely) | н | Stable | 6.1. | No | https://www.mindat.org/min-4003.html |

| | Nomenclature | | Tre | eatment | | | | |
|------------------------|--|--|---|----------------------------|---|--|--------------------------------|---|
| Material / Species | Variety / type | Called in the trade - Species, variety or Trade (Commercial) name | Possible treatment type, lack of treatment & frequency encountered (see clause 4.2.5.) | Trade code ² | Stability - Variable Stable, or Unstable | Care advice (see Annex A clause 6) | Available as a synthetic | Informative References |
| | (other colours) | Tourmaline with colour prefix | Irradiated to improve yellow/orange (rarely) | R | Stable | 6.1. | No | https://www.mindat.org/min-4003.html |
| | (other colours) | Tourmaline with colour prefix | Near-colourless oils and wax in fissures (occasionally) | O/ <mark>SC</mark> | Unstable | 6.1. 6.2. j & k | No | https://www.mindat.org/min-4003.html |
| Tourmaline group cont. | (other colours) | Tourmaline with colour prefix | Resins or other polymers in fissures (rarely) | RES/S C | Unstable | 6.1. 6.2. j & k | No | https://www.mindat.org/min-4003.html |
| | Parti-coloured: | Parti-coloured, Bi- coloured, or tri- coloured Tourmaline | No treatment (commonly) | N | N/A | 6.1. | No | https://www.mindat.org/min-4003.html |
| | Parti-coloured: | Parti-coloured, Bi- coloured, or tri- coloured Tourmaline | Near-colourless oils and wax in fissures (occasionally) | O/ <mark>SC</mark> | Unstable | 6.1. 6.2. j & k | No | https://www.mindat.org/min-4003.html |
| | Parti-coloured: | Parti-coloured, Bi- coloured, or tri- coloured Tourmaline | Resins or other polymers in fissures (rarely) | RES/S C | Unstable | 6.1. 6.2. j & k | No | https://www.mindat.org/min-4003.html |
| | Watermelon Tourmaline (with red core and green rim) | Watermelon Tourmaline | No treatment (commonly) | N | N/A | 6.1. | No | https://www.mindat.org/min-4003.html https://www.mindat.org/min-10889.html |
| | (with red core and green rim) | Watermelon Tourmaline | Near-colourless oils and wax in fissures (occasionally) | O/ <mark>SC</mark> | Unstable | 6.1. 6.2. j & k | No | https://www.mindat.org/min-4003.html https://www.mindat.org/min-10889.html |
| | (with red core and green rim) | Watermelon Tourmaline | Resins or other polymers in fissures (commonly) (rarely KS | RES/S C | Unstable | 6.1. 6.2. j & k | No | https://www.mindat.org/min-4003.html https://www.mindat.org/min-10889.html |

| Nomenclature | | | Treatment | | | | | |
|------------------------|--------------------------|--|---|----------------------------|---|--|--------------------------------|---|
| Material / Species | Variety / type | Called in the trade - Species, variety or Trade (Commercial) name | Possible treatment type, lack of treatment & frequency encountered (see clause 4.2.5.) | Trade code ² | Stability - Variable Stable, or Unstable | Care advice (see Annex A clause 6) | Available as a synthetic | Informative References |
| | Liddicoatite | Liddicoatite | No treatment (commonly) | N | N/A | 6.1. | No | https://www.mindat.org/min-4003.html https://www.mindat.org/min-2395.html |
| Tourmaline group cont. | Liddicoatite | Liddicoatite | Near-colourless oils and wax in fissures (occasionally) | O/ <mark>SC</mark> | Unstable | 6.1. 6.2. j & k | No | https://www.mindat.org/min-4003.html https://www.mindat.org/min-2395.html |
| | Liddicoatite | Liddicoatite | Resins or other polymers in fissures (commonly) | RES/S C | Unstable | 6.1. 6.2. j & k | No | https://www.mindat.org/min-4003.html https://www.mindat.org/min-2395.html |
| | Schorl | Schorl, or black tourmaline | No treatment (always) | N | N/A | | No | https://www.mindat.org/min-3578.html |
| | Tourmaline Cat's- eye | Tourmaline Cat's-eye | No treatment (commonly) | N | N/A | 6.1. | No | https://www.mindat.org/min-4003.html https://www.mindat.org/min-53343.html |
| | Tourmaline Cat's- eye | Tourmaline Cat's-eye | Near-colourless oils and wax in fissures (occasionally) | O/ <mark>SC</mark> | Unstable | 6.1. 6.2. j & k | No | https://www.mindat.org/min-4003.html https://www.mindat.org/min-53343.html |
| | Tourmaline Cat's- eye | Tourmaline Cat's-eye | Resins or other polymers in fissures (rarely) | RES/S C | Unstable | 6.1. 6.2. j & k | No | https://www.mindat.org/min-4003.html https://www.mindat.org/min-53343.html |
| Tremolite | | See Actinolite | _ | | _ | — | _ | https://www.mindat.org/min-4011.html |
| Tugtupite | | Tugtupite | No treatment (Always) | N/SC | N/A | 6.1. 6.2. j | No | https://www.mindat.org/min-4044.html |

| Nomenclature | | | Treatment | | | | | |
|-----------------------|------------------|--|---|----------------------------|---|--|--------------------------------|--|
| Material / Species | Variety / type | Called in the trade - Species, variety or Trade (Commercial) name | Possible treatment type, lack of treatment & frequency encountered (see clause 4.2.5.) | Trade code ² | Stability - Variable Stable, or Unstable | Care advice (see Annex A clause 6) | Available as a synthetic | Informative References |
| Turquoise | | Turquoise | No treatment (Rarely) | N/SC | N/A | 6.1. 6.2. b, c & j | No | https://www.mindat.org/min-4060.html |
| | | Turquoise | Impregnated with plastic (commonly) | I/SC | Unstable | 6.1. 6.2. j & k | No | https://www.mindat.org/min-4060.html |
| | | Turquoise | Surface near-colourless waxing (commonly) | W/SC | Unstable | 6.1. 6.2. j & k | No | https://www.mindat.org/min-4060.html |
| | | Turquoise | Zachery treatment (coloured and Impregnated with a compound containing Potassium) (occasionally) | I/SC | Stable | 6.1. 6.2. b, c & j | No | https://www.mindat.org/min-4060.html |
| | | Turquoise | Dyed (rarely) | D/ <mark>SC</mark> | Unstable | 6.1. 6.2. b, c, j & k | No | https://www.mindat.org/min-4060.html |
| | Turquoise Matrix | Turquoise Matrix, or Spider's Web Turquoise | See Turquoise above | | See Turquoise above | 6.1. 6.2. b, c, j & k | No | https://www.mindat.org/min-4060.html |
| Ulexite | | Ulexite | No treatment (Always) | N | N/A | | No | https://www.mindat.org/min-4085.html |
| Uvarovite | | See Garnet | | _ | _ | _ | _ | https://www.mindat.org/min-4125.html |
| Variscite | | Variscite | No treatment (Always) | N/SC | N/A | 6.1. 6.2j | No | https://www.mindat.org/min-4156.html |
| Verdite | | Verdite | No treatment (Always) | N/SC | N/A | 6.1. 6.2j | No | https://www.mindat.org/min-5417.html |
| Vesuvianite | | Vesuvianite, or Idocrase | No treatment (Always) | N | N/A | 6.1. 6.2j | No | https://www.mindat.org/min-4223.html https://www.mindat.org/min-6538.html |

| Nomenclature | | | Treatment | | | | | |
|-----------------------|-----------------|--|---|----------------------------|---|--|--------------------------------|--|
| Material / Species | Variety / type | Called in the trade - Species, variety or Trade (Commercial) name | Possible treatment type, lack of treatment & frequency encountered (see clause 4.2.5.) | Trade code ² | Stability - Variable Stable, or Unstable | Care advice (see Annex A clause 6) | Available as a synthetic | Informative References |
| | Californite | Californite | No treatment (Always) | N | N/A | 6.1. 6.2j | No | https://www.mindat.org/min-11025.html |
| Zinc Blende | | See Sphalerite | _ | | _ | - | _ | https://www.mindat.org/min-3727.html https://www.mindat.org/min-6293.html |
| Zircon | | Zircon (with colour prefix) | Heated to produce red and near-colourless (always) | H/ <mark>SC</mark> | Unstable | 6.1. 6.2. b, f & j | No | https://www.mindat.org/min-4421.html |
| | (blue) | Blue Zircon, or Starlite | Heated to produce blue (always) | H/ <mark>SC</mark> | Unstable | 6.1. 6.2. b, f & j | No | https://www.mindat.org/min-4421.html |
| | (other colours) | Zircon (with colour prefix) | No treatment (Rarely) | N/ <mark>SC</mark> | N/A | 6.1. 6.2. b & j | No | https://www.mindat.org/min-4421.html |
| Zircon cont | (other colours) | Zircon (with colour prefix) | Heated to improve yellow (commonly) or green (occasionally) | H/ <mark>SC</mark> | Unstable | 6.1. 6.2. b, f & j | No | https://www.mindat.org/min-4421.html |
| Zoisite | Blue to violet | Tanzanite | No treatment (Rarely) | N/ <mark>SC</mark> | N/A | 6.1. 6.2. j | No | https://www.mindat.org/min-4430.html https://www.mindat.org/min-3885.html |
| | Blue to violet | Tanzanite | Heated (almost always) | H/ <mark>SC</mark> | Stable | 6.1. 6.2. j | No | https://www.mindat.org/min-4430.html https://www.mindat.org/min-3885.html |

| Nomenclature | | | Treatment | | | | | |
|-----------------------|-------------------------------|--|---|----------------------------|---|--|--------------------------------|---|
| Material / Species | Variety / type | Called in the trade - Species, variety or Trade (Commercial) name | Possible treatment type, lack of treatment & frequency encountered (see clause 4.2.5.) | Trade code ² | Stability - Variable Stable, or Unstable | Care advice (see Annex A clause 6) | Available as a synthetic | Informative References |
| | Blue to violet | Tanzanite | Coated with cobalt (rarely) | C/ <mark>SC</mark> | Unstable | 6.1. 6.2. b, j & n | No | https://www.mindat.org/min-4430.html https://www.mindat.org/min-3885.html |
| Zoisite cont. | Transparent other colours | Zoisite with colour prefix | No treatment (commonly) | N/ <mark>SC</mark> | N/A | 6.1. 6.2. j | No | https://www.mindat.org/min-4430.html |
| | Thulite | Thulite | No treatment (Always) | N | N/A | 6.1. | No | https://www.mindat.org/min-4430.html https://www.mindat.org/min-3955.html |
| | Anyolite | Anyolite | No treatment (Always) | N | N/A | 6.1. | No | https://www.mindat.org/min-4430.html https://www.mindat.org/min-27151.html |
| | Non-transparent other colours | Zoisite with colour prefix | No treatment (Always) | N | N/A | 6.1. | No | https://www.mindat.org/min-4430.html |

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