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Gems - Nomenclature

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Gems - Nomenclature

1 Scope

This standard specifies the terms and definitions, naming rules, representation methods of gem.

This standard applies to the naming of gem.

2 Normative references

The following documents are essential to the application of this document. For the dated documents, only the versions with the dates indicated are applicable to this document; for the undated documents, only the latest version (including all the amendments) is applicable to this standard.

GB 11887 Jewelry - Fineness of precious metal alloys and designation

GB/T 16553 Gems - Testing

QB/T 1689 Terms of precious metal adornment

QB/T 2997 Adornment with precious metal coating

3 Terms and definitions

The following terms and definitions apply to this document.

3.1

Gems

The general term for natural gems and artificial gems, which can be referred to as gems.

3.1.1

Natural gems

Minerals or organic substances, which are produced in nature, are featured by beauty, durability, rarity, have the value of craftsmanship, can be processed into ornaments. It is divided into natural gemstones, natural jades, natural organic materials.

3.1.1.1

Natural gemstones

Single crystal of minerals (can contain twin crystals), which are produced in nature, are featured by beauty, durability, rarity, can be processed into ornaments.

3.1.1.2

Natural jades

A mineral aggregate, which is produced in nature; is featured by beauty, durability, rarity and technological value; can be processed into ornaments. A few of them are amorphous.

3.1.1.3

Natural organic materials

The material, which has a direct relationship with natural creatures; is partly or entirely composed of organic substances; can be used for ornaments.

Note: Cultured pearls ("pearls" for short) also fall under this category.

3.1.2

Manufactured products

Materials (except pure metal materials), that are wholly or partly artificially produced or manufactured for use as ornaments. They are divided into synthetic stones, artificial stones, composite stones, reconstructed stones.

3.1.2.1

Synthetic stones

The crystalline body, amorphous body or aggregate, which is completely or partially artificially manufactured AND has known counterparts in nature. Its physical properties, chemical composition, crystal structure are basically the same as the corresponding natural gem. On the surface of gem, a thin layer with basically the same composition and structure as the raw material is artificially regrown. This kind of stone is also a synthetic stone, also known as synthetic gemstone overgrowth.

3.1.2.2

Artificial stones

A crystalline, amorphous, or aggregate, that is manufactured artificially AND has

Laser beams and chemicals are used, to remove dark inclusions inside a diamond, leaving a tube, funnel or other shape of laser marks.

Note: Tubular or funnel-shaped laser marks are also called laser holes.

3.4.6

Filling or impregnation

Filling or impregnation the gaps, (open) fissures, cavities of gems, by the materials such as colorless oils, waxes, glass or resins, OR pouring porous, multi-fissure gems, to improve or change the clarity, appearance, durability of gems.

3.4.7

Coating

The surface of gem is covered with a thin film by coating, plating, or other methods, to change the luster and color, thereby producing special effects or protecting the gem.

3.4.8

High-pressure high-temperature (HPHT) treatment

The processing of gem under high temperature and high pressure, which is mainly used to improve or change the color of gem.

3.4.9

Dyeing

Infiltration of color-causing substances (such as colored oils, dyes, etc.) into gem, to improve or change the color of gem.

3.4.10

Irradiation

Irradiation of gems, by the use of high-energy rays, to change the color of gems.

Note: Irradiation is often accompanied with additional heat treatment.

3.4.11

Diffusion

Under certain temperature conditions, foreign elements are introduced into gem to change the color of gem or produce phenomena.

3.5

Gems ornaments

The products for decoration, which use gem as raw materials, through cutting, carving, inlaying and other processing.

3.6

Classic names of gems

Mineralogy, petrology, material science, traditional gemological names of gems varieties.

3.7

Trade names of gems

In the field of gem circulation, other names other than the classic names of gem, which are widely used and generally recognized.

Note: Other names for gem, such as in local standards, etc.

4 Identification

The identification criteria of various gem varieties are based on GB/T 16553.

5 Naming rules and representation methods

5.1 Gems

5.1.1 General rules for naming

The naming of gem shall abide by the following rules:

- a) It shall be determined, according to the classic names in Appendix A and the various naming rules specified in this standard and the requirements of Appendix B; marked in a prominent position, in the relevant quality documents.
- b) Other minerals (rocks) and material names, which are not listed in Appendix A, can be directly used as the name of gem.
- c) The trade name of gem shall not be used alone. It may indicate "trade name: ×××", in the relevant quality documents. For example, Taishan jade in Shandong local standards shall be named as serpentine, so it may note "trade name: Taishan jade"

c) The origin shall not be involved in the naming of natural organic materials, such as: "Baltic Amber".

5.1.3 Manufactured products

5.1.3.1 Synthetic stones

The naming of synthetic stones shall abide by the following rules:

- a) The word "synthesis" shall be added before the classic name of the corresponding natural gem.
- b) The name of the production plant and manufacturer shall not be used directly, such as: "Chatham emerald" and "Linde emerald".
- c) Names that are confusing or ambiguous shall not be used, such as: "Rubin stone", "red corundum", "synthetic product".
- d) Direct naming shall not be made using synthetic methods, such as "CVD diamond" "HPHT diamond".
- e) For regenerated stones, the word "synthetic" or "regenerated" shall be added before the classic name of the corresponding natural gem. If a thin layer of green synthetic crystal grows on the surface of a colorless natural crystal, it shall be named "synthetic crystal" or "regenerated crystal".

5.1.3.2 Artificial stones

The naming of artificial gemstones shall abide by the following rules:

- a) The word "artificial" shall be added before the name of the material, except for "glass" and "plastic".
- b) The name of the production plant and manufacturer shall not be used for direct naming.
- c) Names that are confusing or ambiguous, such as "Austrian diamonds", shall not be used.
- d) The production method shall not be used for direct naming.

5.1.3.3 Composite stones

The naming of the combined gemstones shall abide by the following rules:

a) The words "composite stone" shall be added after the name of the constituent material, OR the word "composite" shall be added before it.

- b) The name of the constituent material can be written layer by layer, such as: "sapphire, synthetic sapphire composite stone".
- c) Only the name of the main material can be written, such as: "Sapphire composite stone" or "Composite Sapphire".

5.1.3.4 Reconstructed stones

The word "reconstructed" shall be added before the classic name of the natural gem formed, such as: "reconstructed amber", "reconstructed turquoise".

5.2 Imitation stones

- **5.2.1** The naming rules for imitation gemstones are:
 - a) The word "imitation" shall be added before the classic name of the imitation natural gem.
 - b) Try to determine the name of the specific gem, AND use the following expressions, such as: "Imitation crystal (glass)".
 - c) When determining the name of specific gem, all naming rules specified in this standard shall be followed.
 - d) The term "imitation stones" shall not be used alone as a name for gem.
- **5.2.2** When using "imitation of a certain kind of gem" to indicate the name of gem, it means that the gem:
 - a) Is not the imitation gem. For example: "Imitation diamond" is not a diamond.
 - b) Has many possibilities for the materials used. For example: "Imitation diamond" may be glass, synthetic cubic zirconia or crystal, etc.

5.3 Gem with phenomena

5.3.1 Gem with chatoyancy

Add the word "cat's eye" after the classic name of gem. Only "Chrysoberyl Cat's Eye" can be directly called "Cat's Eye".

5.3.2 Jewelry with asterism

Add the word "asterism" before the classic name of gem. For synthetic stones with asterism, the words "synthetic asterism" shall be added before the classic name of the corresponding natural gems.

5.4.2.2 Treatment

The presentation method of treatment shall meet the following requirements:

- a) Indicate on the classic name of gem:
 - Add specific treatment methods before the name, such as: diffused sapphire, bleached, filled jade;
 - Add parentheses after the name, to indicate the treatment method, such as: sapphire (diffusion), jade (bleaching, filling or impregnation);
 - Add the word "treatment" in parentheses after the name, such as: sapphire (treatment), jade (treatment). Try to explain the specific treatment methods in the relevant quality documents, such as: diffusion, bleaching, filling or impregnation.
- b) Gem, for which it is not certain whether it has been processed, may not be indicated in the name. However, it shall be noted in the relevant quality documents that "it may have been treated by XX" or "it has not been determined whether it has been treated by XX" or "the cause of XX has not been determined".
- c) Gem, which are treated by various methods OR whose specific treatment method cannot be determined, shall be named according to a) or b). It can also be noted in the relevant quality documents that "XX has been artificially treated", such as: diamond (treatment), with the additional note "diamond color has been artificially treated".
- d) Treated artificial stones can be named directly, using the classic name of artificial stones.

5.5 Gem ornaments

Gem ornaments are named according to the name of the gem + the name of the ornament. Gem names are determined, according to the corresponding naming rules in this standard; ornament names are determined according to the provisions of QB/T 1689. For example:

- Non-inlaid gem ornament can be named directly by the name of the gem, OR named according to the name of the gem + the name of the ornament, such as: "Jadeite", or "Jadeite Bracelet".
- For ornament consisting of a variety of gems, it can:
 - Name each material one by one, such as: "tourmaline", "garnet", "crystal bracelet";

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