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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 16552-2017

Replacing GB/T 16552-2010

Gems - Nomenclature

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Table of Contents

Foreword...	3
1 Scope...	5
2 Normative references...	5
3 Terms and definitions...	5
4 Identification...	10
5 Naming rules and representation methods...	10
5.1 Gems...	10
5.2 Imitation stones...	13
5.3 Gem with phenomena...	13
5.4 Enhancement and treatment...	14

1 Scope

China's national rules for what a gemstone may be called - the standard that decides whether a stone can be sold as ruby, as synthetic ruby, as treated ruby or only as red imitation stone. It specifies the terms and definitions, the naming rules and the methods of representation for gems, and it applies to the naming of gems. Almost all the fraud in the gem trade is committed with words rather than with stones. A synthetic corundum is chemically and optically the same material as a natural ruby and costs a thousandth as much; a heated, filled or diffused stone is natural but has been altered in ways that change its value and its durability; a composite of a thin gem slice on a cheap base looks identical face-up. The stone itself is not the deception - the name on the ticket is. So the standard fixes the name and the way it must be written. It gives the accepted names for the natural gem species in a normative annex, and then sets the rules of construction: when the word synthetic must appear and where, that a trade name may not stand alone, that a material may not be named after a gem it is not, and how imitation stones must be described.

Enhancement and treatment have their own rules and their own normative annex, distinguishing the routine and stable treatments from those that must always be disclosed. There are rules for stones showing optical phenomena, and for gem ornaments where the metal and the stone are named together. Issued on 14 October 2017 and in force since 1 May 2018, it replaces GB/T 16552-2010.

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.

4 Identification

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

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: xxx", 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".

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.