

Standard Methods for Testing

Fei Cui (Jadeite Jade)

for Hong Kong

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Foreword

This **Standard Methods for Testing Fei Cui (Jadeite Jade) for Hong Kong** presents the recommended standard methods for testing of Fei Cui (Jadeite Jade) for gemstone identification and verification purposes in Hong Kong. This Standard has been issued and is published by the Gemmological Association of Hong Kong Limited (GAHK).

This Standard has been prepared by a group of local gemmologists, academia and gemstone and jewellery associations representatives. To ensure its acceptance as a consensus document in Hong Kong, a draft version of this standard was widely circulated to interested parties in the gemstone and jewellery industry through the members of the Task Force for Gemstone Testing (established under the Accreditation Advisory Board of the Hong Kong Accreditation Service) and their opinions sought. A number of useful comments were received, and these have been taken into account in finalizing this Standard. All such contributions are gratefully acknowledged.

Those working in the Gemstone industry are encouraged to comment at any time to the GAHK on the contents of this standard, so that improvements may be made to future editions.

Introduction

While international guidelines and requirements exist for testing and identifying diamonds, pearls and other gemstones, there have been, until now, no commonly accepted specifications and procedures on testing Fei Cui (Jadeite Jade) which local gemmologists, gemstone laboratory personnel, traders and manufacturers might adopt as standard practice. In the past, complaints have been made by purchasers of Fei Cui (Jadeite Jade) regarding the imprecise wording and lack of consistency in the data presented and test results reported in certificates issued by local laboratories. This has resulted not only in the loss of creditability of local gemstone testing, but also has made the consumer wary of purchasing Fei Cui (Jadeite Jade).

In an effort to strengthen the confidence of those wishing to buy Fei Cui (Jadeite Jade) and to enhance the credibility of the local gemstone testing industry, this document is issued with a view to regularizing the following:

- [1] The practice and methodology of Fei Cui (Jadeite Jade) testing,
- [2] The technical specifications to be set and the formats and contents to be used when issuing Fei Cui (Jadeite Jade) test reports or test certificates, and
- [3] The definition and nomenclature of Fei Cui (Jadeite Jade).

This version **Standard Methods for Testing Fei Cui (Jadeite Jade) for Hong Kong (2006)** supersedes the previous version **Standard Method for Testing Jadeite Jade for Hong Kong (2004)** with immediate effect.

Language

In the text, English and Chinese are used together for the definition of Fei Cui (Jadeite Jade). The English language version remains the definitive version.

Fei Cui (Jadeite Jade)

Definition of Fei Cui (Jadeite Jade):

Fei Cui (Jadeite Jade) is a granular to fibrous polycrystalline aggregate. It is composed of Jadeite as major mineral. It may consist of other minor minerals such as Omphacite, Kosmochlor, Amphibole and Feldspar.

Major Physical Properties of Fei Cui (Jadeite Jade) :

Crystal Habit:	Polycrystalline, granular to fibrous
Common Colour:	Colourless, White and green, yellow, reddish orange, brown, grey, black, light purplish red, violet, blue, pink and etc. with different tone.
¹ Lustre :	Glassy luster to greasy luster
Cleavage :	Jadeite has two directions of perfect cleavages , the polycrystalline crystal aggregate may show minute glistening surface.
¹ Mohs'Hardness:	6.5 – 7.
² Specific Gravity:	3.34 (+0.06, -0.09)
Optical Nature:	Anisotropic polycrystalline aggregate.
Refractive Index:	1.666 – 1.680 (±0.008) , by spot method (distance vision method) normally read as 1.66 °
Ultraviolet Fluorescence:	None to faint, white, green, and yellow.
Absorption Spectrum:	437 nm absorption line; absorption line(s) approximately at 630 nm , 660nm and 690 nm are observed on green jadeite jade coloured by chromium.
Magnification:	Spots 、 needle 、 glistening 、 Fibrous (texture) to Granular (texture) 、 solid inclusion °

Notes:

¹The test for luster and Mohs'Hardness are not included in the scope of the Standard Methods for Testing Fei Cui (Jadeite Jade) for Hong Kong

² The standard testing method of Determination of Specific Gravity is not applicable on mounted Fei Cui (Jadeite Jade).

Type of Fei Cui (Jadeite Jade)

Type	Known as	Definition
Natural Fei Cui (Jadeite Jade)	Type A	Refers to natural Fei Cui (Jadeite Jade) which is not subject to any form of chemical treatment ¹
Chemically Treated and resin Impregnated Fei Cui (Jadeite Jade)	Type B	Refers to Fei Cui (Jadeite Jade) which is chemically treated and resin impregnated.
Dyed Colour Fei Cui (Jadeite Jade)	Type C	Refers to Fei Cui (Jadeite Jade) which is dyed with colour.
Chemically Treated, Resin Impregnated and Dyed Colour Fei Cui (Jadeite Jade)	Type B+C	Refers to Fei Cui (Jadeite Jade) which is chemically treated, resin impregnated and dyed with colour.

Notes:

¹To polish natural Fei Cui (Jadeite Jade) with colourless wax, which does not cause any damage on the crystalline structure of the jadeite jade, shall not be classified as a chemical treatment.