



NEWS

23/12/2019

Color stability test: Overview of "type" classifications

GRS Laboratories now offers color stability testing services at all laboratory locations

Color fading is a natural phenomenon observed in certain gemstones, particularly with orange to yellow sapphires. In most cases, this phenomenon is reversible and occurs when the sapphire is exposed to a certain type of light. The light sources emission energy will eventually induce a color-change, effectively reducing the yellow or orange component of that sapphire. For example, an orangy-pink Padparadscha sapphire can change to a pink sapphire color. The original color can often be reinstated after exposure to a particular light source such as long-wave UV-light.

GRS has established four categories in which we divide the tested gemstones. After color stability testing has been performed, the observed results will be reported as follows on the GRS Gemstone Report:

TYPE 1

Comment on main report: Color stability test applied: Type 1

Comment on appendix: The GRS color stability test was applied. No indication of fading was observed (GRS-type "CST 1"). Post-testing exposure to UV- or sunlight will not decrease the color saturation and/or cause a change in hue.

TYPE 2a

Comment on main report: Color stability test applied: Type 2a

Comment on appendix: The GRS color stability test was applied. Indication of orange and/or yellow component fading was observed. A padparadscha color is visible in both the discharged and charged state (GRS-type "CST 2a"). Post-testing increase of color saturation and/or change of hue by exposure to UV- or sunlight is possible.

TYPE 2b

Comment on main report: Color stability test applied: Type 2b

Comment on appendix: The GRS color stability test was applied. Indication of orange and/or yellow component fading was observed. No padparadscha color is visible in the discharged state (GRS-type "CST 2b"). Post-testing increase of color saturation and/or change of hue by exposure to UV- or sunlight is possible.

TYPE 3a

Comment on main report: Color stability test applied: Type 3a

Comment on appendix: The GRS color stability test was applied. Indication of orange and/or yellow component increase was observed. A padparadscha color is visible in both the discharged and charged state (GRS-type "CST 3a"). Post-testing increase of color saturation and/or change of hue by exposure to UV- or sunlight is possible.

TYPE 3b

Comment on main report: Color stability test applied: Type 3b

Comment on appendix: The GRS color stability test was applied. No padparadscha (or vivid yellow or orange) color is visible in the discharged state (GRS-type "CST 3b"). Post-testing increase of color saturation and/or change of hue by exposure to UV- or sunlight is possible.

TYPE 4

Comment on main report: Color stability test applied: Type 4

Comment on appendix: The GRS color stability test was applied. Indication of fading was observed (GRS-type "CST 4"). Post-testing increase of color saturation and/or change of hue by exposure to UV- or sunlight is not possible.

Potentially applies to: Padparadscha Sapphires, Yellow Sapphires, Orange Sapphires (heated and unheated)

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GEMSTONE REPORT
EDELSTEINBERICHT
RAPPORT DE PIERRE PRÉCIEUSE

No.	GRS2019-Sample	Origin	Sri Lanka
Date	23th December 2019	Gemological testing revealed characteristics corresponding to those of a natural yellow sapphire from:	
Object	One faceted gemstone		
Identification	Natural Yellow Sapphire		



Weight 10.15 ct
Dimensions 12.95 x 11.85 x 7.90 mm
Cut step/step (4)
Shape octagonal
Color yellow
Comment No indication of thermal treatment
* See appendix for color stability test results (Type 1)

See reverse for important information, terms and limitations.

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Appendix to report No. GRS2019-Sample

Color stability test applied. No indication of fading was observed.
Post-testing exposure to UV- or sunlight will not increase the color saturation and/or cause a change in hue.

Dr. A. Peretti
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Director GRS



Sample of a GRS report with color stability test result.

Article URL: <https://www.gemresearch.ch/news/2019/12/23/color-stability-test-overview-of-type-classifications>

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