

**Standardised Gemmological Report Wording
Implementation beginning January, 2005**

Corundum with glass filled fractures and/or cavities enhancing the clarity

Members of the Laboratory Manual Harmonisation Committee (LMHC) have standardised the nomenclature that they use to describe filled fractures in corundum. This nomenclature is used for all situations that involve the filling of fractures or cavities with glass, where there are indications that the clarity of the gemstone has been altered by this process. Excluded from this nomenclature are treatments that involve the flux assisted healing of fractures (for which see Information Sheet #1).

Filled fractures or cavities in corundum:

Any corundum that shows indications of having undergone clarity modification (unrelated to the flux assisted healing process described in Information Sheet #1), through the filling of fractures with glass shall be described as « species » 'natural corundum', « variety » 'ruby' or 'sapphire' « comments » [**indications of clarity enhancement / modification**], or [**indications of material in fractures**], plus optional texts 1 and / or 2 below

Optional text 1: the appropriate quantification terminology – **alpha numeric and/or text description**' see tables 1 and 2 and examples in figures 2a, 2b, and 2c

Optional text 2: the identification of the filler by either using the text in table 1 or by stating the following: using a glass-like compound to reduce the visibility of fractures. See examples in figures 2a, 2b, and 2c.

Table 1. Quantification of material in fractures

Status →	No indications of clarity enhancement	Indications of clarity enhancement / material in fractures		
Report Alpha numeric		F1	F2	F3
Report Text →	No indications of clarity enhancement / modification or No indications of material in fractures	indications of (minor) clarity enhancement / modification or indications of (a minor amount of) material in fractures	indications of (moderate) clarity enhancement / modification or indications of (a moderate amount of) material in fractures	indications of (significant) clarity enhancement / modification or indications of (a significant amount of) material in fractures
Further optional report comment		([a glass], [a lead glass], [a silica glass], has been identified as the filler)		

Special Notices to Table 1	
1.	Whether using the alpha numeric or text description the report shall also illustrate the equivalent by appending the above chart.
2.	The presence of an insignificant amount of clarity enhancement need not be declared
3.	The presence of materials within fractures that have occurred naturally are not within the context of this clause and need not be declared
4.	Wordings in parenthesis '(')' are optional, wording in '[']' are alternatives.

It is possible that during the clarity enhancement process in addition to fractures, cavities may become filled with the clarity enhancing substance being used, i.e., glass. When such filled cavities are found in clarity enhanced stones (excluding the situations described in Information Sheet #1) the report text and / or alpha numeric in table 2 shall be additionally used.

Table 2: Quantification of material in cavities

Status →	Filled cavities		
Report Alpha numeric →	(C1)	(C2)	(C3)
Report Text →	(Minor) filled cavities	(Moderate) filled cavities	(Significant) filled cavities

Members of the LMHC determine which quantification terminology to use (see table 1) taking into account the extension, thickness and position of each filled fracture(s), (see examples in figures 2a, 2b, and 2c).

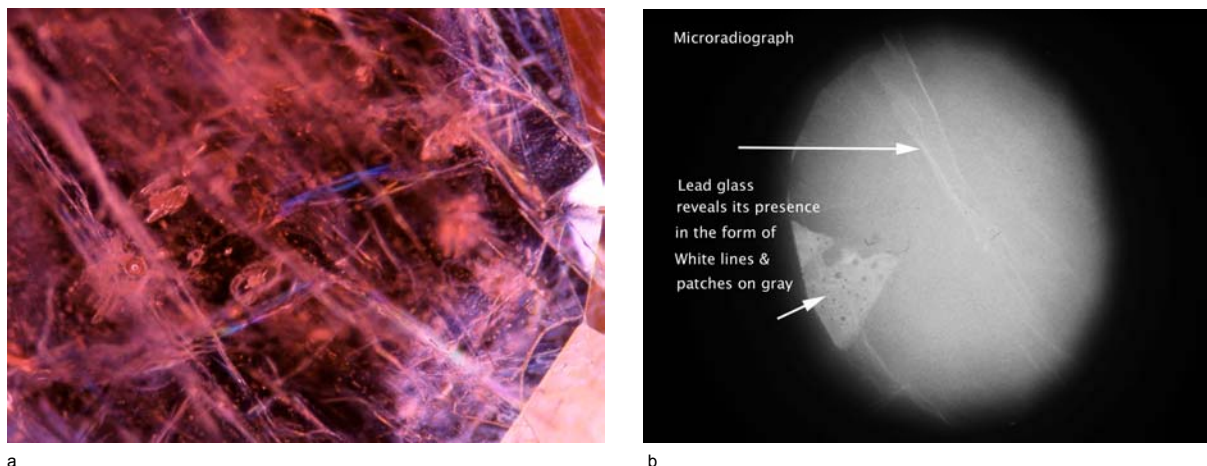


Figure 1: (a) Colour flashes seen in the area of lead glass filled fractures in ruby (b) a microradiograph that reveals the presence of lead glass in fractures

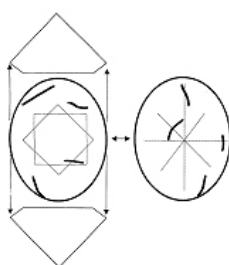


Figure 2a:

indications of minor clarity enhancement / modification

or

indications of a minor amount of material in fractures

... ([a glass], [a lead glass], [a silica glass], has been identified as the filler)

or

...using a / an glass-like compound to reduce the visibility of fractures

(and / or F1).

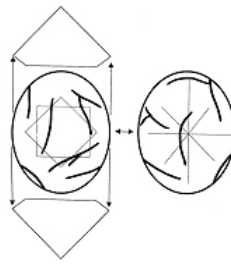


Figure 2b:

indications of moderate clarity enhancement / modification

or

indications of a moderate amount of material in fractures

... ([a glass], [a lead glass], [a silica glass], has been identified as the filler)

or

...using a / an glass-like compound to reduce the visibility of fractures

(and / or F2).

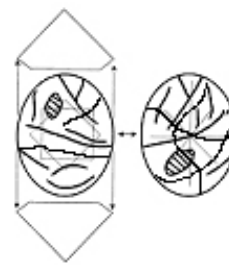


Figure 2c:

indications of significant clarity enhancement / modification. Significant filled cavities.

or

indications of a significant amount of material in fractures. Significant filled cavities.

... ([a glass], [a lead glass], [a silica glass], has been identified as the filler)

or

...using a / an glass-like compound to reduce the visibility of fractures

(and / or F3 and C3).

Special Notice: Durability / stability tests are presently being conducted. Depending upon the results of these tests this IS may be amended to include remarks concerning these factors

©2005 Laboratory Manual Harmonisation Committee. This document may be freely copied and distributed so long as it is reproduced in its entirety, complete with this copyright statement. Any other reproduction, translation or abstracting is prohibited without the express written consent of the Laboratory Manual Harmonisation Committee.

All rights jointly reserved by:

AGTA-Gemological Testing Center (USA), CISGEM (Italy), GAAJ Laboratory (Japan), GIA-Gem Trade Laboratory (USA), GIT-Gem Testing Laboratory (Thailand), Gübelin Gem Lab (Switzerland), SSEF Swiss Gemmological Institute (Switzerland)