

## LMHC Information Sheet # 7

### Corundum

- **No indications of heating**
- **Indications of heating**

Members of the Laboratory Manual Harmonisation Committee (LMHC) have standardised the nomenclature that they use to describe any corundum that shows no indications of heating or any corundum that shows indications of heating. See also information sheets #1 to #4.

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#### No indications of heating

Any corundum that shows no indications of having undergone heat treatment shall be described as,

Identification:

Species: **(natural)<sup>1</sup> corundum**

Variety: **(natural)<sup>2</sup> ruby / (natural)<sup>2</sup> sapphire<sup>3</sup> / (natural)<sup>2</sup> padparadscha (sapphire)<sup>1</sup>**

Further information: **no indications of heating (NTE)**

This clause may include the presence of an insignificant amount of coloured material within a fissure, but not any amount of iron oxide and/or an orange dye in a padparadscha (sapphire).

#### Indications of heating

Any corundum that shows indications of having undergone heat treatment shall be described as,

Identification:

Species: **(natural)<sup>1</sup> corundum**

Variety: **ruby / sapphire<sup>3</sup> / padparadscha (sapphire)<sup>1</sup>**

Further information: **Indications of heating (to modify the colour or transparency of the stone)<sup>1</sup> (TE)**

**Note A:** Certain heating conditions may not modify some characteristic inclusions/internal features (e.g., intact rutile needles, unaltered zircon) while at the same time changing others (e.g., carbonates, negative crystals, apatite). If any heat-altered inclusions are observed, the comment shall be 'indications of (low temperature)<sup>1</sup> heating'. This may not apply for magmatic hosted corundum.

**Note B:** Certain heating conditions may not modify some internal characteristics (e.g., blue zoning) while at the same time changing other features (e.g., infrared spectra). In such circumstances, if spectral data indicate heating has taken place, the comment shall be 'indications of (low temperature)<sup>1</sup> heating'. This may not apply for magmatic hosted corundum.

**Note C:** Certain heating conditions (e.g., with the addition of pressure) may modify some internal characteristics (e.g., healed fissures) to a greater than usual extent, and may affect the FTIR spectrum of corundum.

<sup>1</sup> wording and text in parenthesis is optional.

<sup>2</sup> wording in parenthesis is optional and shall only be used for natural untreated stones

<sup>3</sup> 'sapphire' for the blue variety of corundum. For other colours, 'sapphire' preceded by its colour (e.g., yellow sapphire, pink sapphire, etc.) or preceded/replaced by padparadscha. For the definition of a 'padparadscha (sapphire)', see information sheet #4.

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