Glass

1. Production context

ID and name: OG1 material_glass_production_context
Provided by: data provider
Obligation: mandatory
Occurrences: 1
Definition: The production context the object is related to.
Allowed values and other constraints: controlled vocabulary

2. Recycling

ID and name: OG2 material_glass_recycling
Provided by: data provider
Obligation: recommended
Occurrences: 0–1
Definition: Information about whether the glass was recycled.

with the two subproperties:

2.1 Indication for recycling

ID and name: OG2.1 material_glass_recycling_indicator
Provided by: data provider
Obligation: mandatory
Occurrences: 1
Definition: Does the glass show indicators for recycling?
Allowed values and other constraints: controlled vocabulary

2.2 Indicators

ID and name: OG2.2 material_glass_recycling_reason
Provided by: data provider
Obligation: mandatory
Occurrences: 1
Definition: If `OG2.1 Recycling indicator` is provided, short explanation for choice.
Allowed values and other constraints: free text
Example: mixture of different glass pastes

3. Chemical composition

ID and name: OG3 material_glass_chemistry
Provided by: data provider
Obligation: mandatory
Occurrences: 1-n
Definition: The chemical composition of the glass.

with the eight subproperties:

3.1 Analytical method

ID and name: B4.1 chemistry_method
Provided by: data provider
Obligation: mandatory
Occurrences: 1
Definition: The method used to determine the chemical composition.
Allowed values and other constraints: controlled vocabulary

3.2 Analysed compound

ID and name: B4.2 chemistry_compound
Provided by: data provider
Obligation: mandatory
Occurrences: 1–n
Definition: The analysed chemical compound (chemical element or oxide).
Allowed values and other constraints: controlled vocabulary, not available if a mass spectrometric-method is recorded in `B4.1 Analytical method`.

3.3 Analysed isotope

ID and name: B4.3 chemistry_icp_isotope
Provided by: data provider
Obligation: recommended
Occurrences: 0–n
Definition: The isotope used for quantification of a chemical element.
Allowed values and other constraints: controlled vocabulary, only available if a mass spectrometric-method is recorded in `B4.1 Analytical method`.

3.4 Value

ID and name: B4.4 chemistry_value
Provided by: data provider
Obligation: mandatory
Occurrences: 1–n
Definition: The concentration of the analysed chemical compound.
Allowed values and other constraints: decimal number
Example: 15.3

3.5 Unit

ID and name: B4.5 chemistry_unit
Provided by: data provider
Obligation: mandatory
Occurrences: 1–n
Definition: The unit in which the concentration of the analysed chemical compound is given.
Allowed values and other constraints: controlled vocabulary

3.6 Uncertainty type

ID and name: B4.6 chemistry_uncertainty_type
Provided by: data provider
Obligation: recommended
Occurrences: 0–n
Definition: The type of analytical uncertainty.
Allowed values and other constraints: controlled vocabulary

3.7 Confidence level

ID and name: B4.7 chemistry_uncertainty_sigma
Provided by: data provider
Obligation: recommended
Occurrences: 0–n
Definition: Sigma value of the reported absolute analytical uncertainty.
Allowed values and other constraints: 1, 2, 3
Example: 2

3.8 Uncertainty value

ID and name: B4.8 chemistry_uncertainty_value
Provided by: data provider
Obligation: recommended
Occurrences: 0–n
Definition: Value of the absolute analytical uncertainty.
Allowed values and other constraints: decimal number
Example: 0.3

4. Glass group

ID and name: OG4 material_glass_group
Provided by: TerraLID system
Obligation: recommended
Occurrences: 0–1
Definition: The glass material group of the sample, inferred from the chemical composition.
Allowed values and other constraints: controlled vocabulary

5. Glass colour

ID and name: OG5 material_glass_colour
Provided by: data provider
Obligation: recommended
Occurrences: 0–1
Definition: The colour of the glass.
Allowed values and other constraints: controlled vocabulary

6. Colourant

ID and name: OG6 material_glass_colourant
Provided by: TerraLID system
Obligation: recommended
Occurrences: 0–1
Definition: The compound giving the glass its colour, inferred from the chemical composition.
Allowed values and other constraints: controlled vocabulary
Example: Cu

7. Decolourant

ID and name: OG7 material_glass_decolourant
Provided by: TerraLID system
Obligation: recommended
Occurrences: 0–1
Definition: The compound responsible for decolouring the glass, inferred from the chemical composition.
Allowed values and other constraints: controlled vocabulary

8. Lead source

ID and name: OG8 material_glass_lead_source
Provided by: data provider
Obligation: recommended
Occurrences: 0–1
Definition: The constituent that is the source of lead in the glass.
Allowed values and other constraints: controlled vocabulary

9. Sr isotopes

ID and name: OG9 material_glass_isotopes_Sr
Provided by: data provider
Obligation: optional
Occurrences: 0–n
Definition: The $^{87}Sr/^{86}Sr$ ratio of the glass.

with the two subproperties:

9.1 Value

ID and name: OG9.1 material_glass_isotopes_Sr_value
Provided by: data provider
Obligation: mandatory
Occurrences: 1
Definition: Value of the $^{87}Sr/^{86}Sr$ ratio.
Allowed values and other constraints: decimal number
Example: 0.7856

9.2 Analytical precision

ID and name: OG9.2 material_glass_isotopes_Sr_2SD
Provided by: data provider
Obligation: recommended
Occurrences: 0–1
Definition: Absolute analytical uncertainty of the $^{87}Sr/^{86}Sr$ ratio in double standard deviation (2SD).
Allowed values and other constraints: decimal number
Example: 0.0002

10. Nd isotopes

ID and name: OG10 material_glass_isotopes_Nd
Provided by: data provider
Obligation: optional
Occurrences: 0–n
Definition: The εNd value of the glass.

with the two subproperties:

10.1 Value

ID and name: OG10.1 material_glass_isotopes_Nd_value
Provided by: data provider
Obligation: mandatory
Occurrences: 1
Definition: Value of εNd.
Allowed values and other constraints: decimal number
Example: t.b.d.

10.2 Analytical precision

ID and name: OG10.2 material_glass_isotopes_Nd_2SD
Provided by: data provider
Obligation: recommended
Occurrences: 0–1
Definition: Absolute analytical uncertainty of the εNd value in double standard deviation (2SD).
Allowed values and other constraints: decimal number
Example: t.b.d.

11. Hf isotopes

ID and name: OG11 material_glass_isotopes_Hf
Provided by: data provider
Obligation: optional
Occurrences: 0–n
Definition: The εHf value of the glass.

with the two subproperties:

11.1 Value

ID and name: OG11.1 material_glass_isotopes_Hf_value
Provided by: data provider
Obligation: mandatory
Occurrences: 1
Definition: Value of εHf.
Allowed values and other constraints: decimal number
Example: t.b.d.

11.2 Analytical precision

ID and name: OG11.2 material_glass_isotopes_Hf_2SD
Provided by: data provider
Obligation: recommended
Occurrences: 0–1
Definition: Absolute analytical uncertainty of the εHf value in double standard deviation (2SD).
Allowed values and other constraints: decimal number
Example: t.b.d.

12. O isotopes

ID and name: OG12 material_glass_isotopes_O
Provided by: data provider
Obligation: optional

Occurrences: 0–n

Definition: The $\delta^{18}O$ value of the glass.

with the two subproperties:

12.1 Value

ID and name: OG12.1 material_glass_isotopes_O_value

Provided by: data provider

Obligation: mandatory

Occurrences: 1

Definition: Value of $\delta^{18}O$.

Allowed values and other constraints: decimal number

Example: t.b.d.

12.2 Analytical precision

ID and name: OG12.2 material_glass_isotopes_O_SD

Provided by: data provider

Obligation: recommended

Occurrences: 0–1

Definition: Absolute analytical uncertainty of the $\delta^{18}O$ value given in single SD.

Allowed values and other constraints: decimal number

Example: t.b.d.

13. Glass corrosion

ID and name: OG13 material_glass_corrosion

Provided by: data provider

Obligation: optional

Occurrences: 0–n

Definition: Information about the corrosion of the glass and its extent.

with the two subproperties:

13.1 Extent

ID and name: OG13.1 material_glass_corrosion_extent

Provided by: data provider

Obligation: mandatory

Occurrences: 1

Definition: The extent of corrosion affecting the glass.

Allowed values and other constraints: controlled vocabulary

13.2 Details

ID and name: OG13.2 material_glass_corrosion_reason

Provided by: data provider

Obligation: mandatory

Occurrences: 1

Definition: If `OO13.1 Recycling indicator` is provided, short description of features.

Allowed values and other constraints: free text

Example: iridescent corrosion crust