

SOCIETY OF GLASS TECHNOLOGY

CERTIFICATE OF ANALYSIS

STANDARD SAND No. 9



Constituent	Content % (m/m)	SD	No of Results	No of Labs
Silicon dioxide, SiO ₂	97.24	0.12	20	6
Aluminium oxide, Al ₂ O ₃	1.35	0.03	28	7
Total iron as iron (III) oxide, Fe ₂ O ₃	0.103	0.005	27	6
Titanium oxide, TiO ₂	0.044	0.004	21	5
Calcium oxide, CaO	0.02	0.01	21	5
Magnesium oxide, MgO	0.06	0.01	20	5
Sodium oxide, Na ₂ O	0.10	0.02	21	7
Potassium oxide, K ₂ O	0.82	0.02	28	7
Loss on ignition	0.24	0.05	24	5

Analytical techniques, whilst predominantly XRF did include other methods. Other elements such as Ba and Mn were detected. Only two laboratories determined Cr₂O₃ and a value of 3 ppm reported.

References:

Proposed method for the analysis of glass making sands by an x-ray fluorescence technique using a fused bead. *Glass Technol.*, 1993, 34 (4). Sampling and analysis of glass-making sands. BS 2975:1988.

£90 per 200 grammes

Country of origin - UK

Handling

The sand is supplied in a damp condition, double wrapped in polythene. It is a naturally occurring material with different grain sizes and therefore sub-sampling is not recommended.

All the granular materials must be dried at 110°C for 1 hour before milling to pass a 200 mesh sieve (75 microns) prior to analysis. The sample may then be split into smaller fractions of equal weight, milled for equal times and then thoroughly mixed to ensure the powder is homogeneous prior to use.

Once milled, the sand should be kept in a tightly sealed container.

Health Hazard

This silica sand contains little or no respirable silica, however, respirable silica may be produced during milling.

This constitutes a health hazard and great care should be exercised, particular attention being paid to the avoidance of inhaling dust produced by wearing dust masks or the equivalent to BS2091 Type B, and the provision of dust extraction/ventilation where dust is produced. Refer to H.S.E. Guidance Note EH40.

Solubility

Negligible in water.

Fire Hazard

None.

Explosive Hazard

None

Corrosion Hazard

None

Disposal

As an inert material, no problem exists.

Liability

Such information is to the best of the Society of Glass Technology's knowledge and belief accurate and reliable. However, no representation, warranty or guarantee is made as to its accuracy, reliability or completeness. It is the user's responsibility to satisfy itself as to the suitability and completeness of such information for their own particular use.