

TECHNICAL DATA SHEET

GEO40™ SOL-1440Na (FL)

Geo40™ SOL-1440Na (FL) is a sustainably derived aqueous dispersion of amorphous silicon dioxide nanoparticles. The alkaline dispersion contains small sized colloidal silica particles at 40% SiO₂ concentration in water. The particles have a negatively charged surface (anionic) which is stabilized by sodium hydroxide.

RECOMMENDED APPLICATIONS

The product can be used in a wide variety of applications, such as:

- Manufacture of fabricated metal products (refractories and investment casting)
- Manufacture of electronic products (precision polishing)
- Textile treatment
- Manufacture of pulp, paper and paper products (drainage aid)
- Coatings and inks
- Catalyst binder
- Antislips and anti-soil treatments
- Other applications where a small particle size colloidal silica is required

CHARACTERISTIC PROPERTIES

Specification*	Range	Target Value	Unit
Average particle size	11.5 – 15.5	13.5	nm
Solids	39.0 – 42.0	40.5	w/w %
pH	9.7 – 10.5	10.1	pH
Density	1.278 – 1.298	1.288	kg/L
Surface area	176 – 236	201	m ² /g
Free Alkalinity (as Na ₂ O)	0.30 – 0.70	0.50	w/w %
Viscosity	4.0 – 16.0	10.0	cP
Biocide	-	200	mg/kg

*Special Customer related specifications can be agreed upon

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PACKAGING INFORMATION

Geo40™ SOL-1440Na is available in the following packaging amounts:

- 258kg drum
- 1300kg Intermediate Bulk Container (IBC)
- 22.3MT shipping container with bladder

HANDLING & STORAGE

Avoid contact with eyes, skin, or clothing. Wash thoroughly after handling. Avoid breathing aerosols and mists (also dust from dried-down product). Wash contaminated clothing before reuse and before the colloidal silica dries.

Keep container tightly closed. Transportation and storage in closed original container. Store at temperatures above 2°C (35°F) and below 43°C (110°F) to avoid irreversible gel formation or silica precipitation.

Protect from heat and direct sunlight. If storage tanks are located outdoors, choose a shaded location or erect a sunscreen over the containers.

Protect from frost. If freezing temperatures are likely, storage containers should be equipped with steam coils and lagging.

Shelf life (in unopened original packaging): 12 months.

HEALTH, SAFETY & ENVIRONMENT

Full HSE information is available by requesting a SDS from any Geo40 representative or by contacting the Sales department at sales@geo40.com

Not considered dangerous goods nor deemed hazardous material by the transport regulations.

TO ORDER MATERIAL, OR FIND OUT MORE

Please contact: sales@geo40.com

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