

Description

GeoPro CS-5 is an ultra-low-viscosity, non-toxic aqueous dispersion of colloidal silica. It is designed for permeation grouting of soils and rock fissures. Its low viscosity enables effective penetration into fine pores, voids, and fractures. Upon activation, it forms a firm, stable, water-resistant silica gel. The resulting gel improves soil strength, reduces permeability, and enhances ground stability.

Application

- ▶ Permeation grouting
- ▶ Stabilizing loose soils
- ▶ Curtain grouting
- ▶ Pre-injection grouting

Advantages

- ▶ Ultra low viscosity
- ▶ Controllable reaction times
- ▶ Water based
- ▶ Non toxic
- ▶ Good bonding to wet surfaces

Components

The GeoPro CS-5 involves the use of two components: GeoPro CS-5 Resin and sodium chloride (salt). The GeoPro CS-5 system is activated by the addition of an initiator (salt).

Dosage should be selected according to temperature, groundwater chemistry, soil permeability, and the required working or gel time.

Resin: 100 parts by volume

Salt solution: typically 1–10 parts by volume per 100 parts of resin. Adjustment: increase dosage to shorten gel time; reduce dosage to extend gel time. Final dosage must be confirmed by site-specific testing before application.

Storage

GeoPro CS-5 should be stored out of sunlight in a dry environment above 5°C and below 30°C. If these conditions are kept and the product packaging is unopened, then a shelf life of 12 months can be expected.

Health & Safety

Read the Safety Data Sheet before use. Only use GeoPro CS-5 as intended. Avoid contact with eyes and skin, do not ingest. Always use the necessary adequate PPE. Safety Data Sheets available on request.

GeoPro CS-5 Resin

Density	1.20g/ml
Viscosity	5 mPa*S
pH Value	9-10
SiO ₂ Content %	30
Colour	Clear

All tests carried out at 20°C.

Packaging

GeoPro CS-5 resin is supplied in 1000lt (1250kg) IBC.

Application

Mix the required amount of accelerator into the GeoPro CS-5 Grout and continuously stir until fully mixed. Fully pre-mix before injection.

GeoPro CS-5 is pumped with a single component pump, such as a cement grout pump, through an injection packer, injection lance or TAMS system. GeoPro CS-5 can be injected using a two component pump fitted with an in-line static mixer to ensure adequate mixing.

Legal Disclaimer

The information in this data sheet for the colloidal ground injection resin (GeoPro CS-5) is provided in good faith but without warranty. It is for general guidance only and not a guarantee or specification. Users must test and confirm the Product suitability for their application and the follow the Safety Data Sheet(SDS) before use. M&T Global Ltd and its Partners are not liable for any direct or indirect losses, damages, or injuries arising from the use, handling, storage, or disposal of the Product. Suggested use do not imply freedom from patent rights. Contact patent holders for permission as needed.