

Strata AC52™

Sealing and Stabilization

STRATA AC52™ is a non-toxic aqueous solution of multi-functional acrylic monomers. This compound gels in a few seconds to a few minutes when an activator/initiator is added just before use. The final product is a crosslinked gel. In wet, or dry conditions, the volume of the gel increases, or decreases, in a reversible and waterproofing manner.

FIELDS OF APPLICATIONS

STRATA AC52™ is used for sealing and consolidation works in presence of water. It works by injection via drilled holes or ducts, of a highly fluid, hydrophilic product with a controlled set time and it is applied for:

- Treatment of water infiltration and ground water inrush
- Soil consolidation
- Treatment of voids, in the form of sand grouts, cements

ADVANTAGES

- Is non-toxic for the environment
- Not flammable, No acrylamide
- Very low viscosity and very low permeability (5x10⁻⁹ cm/sec)
- Is durable in wet and dry conditions

PRESENTATION

STRATA AC52™ involves the use of four components:

- STRATA AC52™ the resin
- STRATA TEA 85, a liquid activator for standard setting times between 10s and 60 min
- STRATA SP, a powder initiator to be dissolved in water
- STRATA KF, Time control additive to be desolved in water



CHEMICAL PROPERTIES

	STRATA AC52	STRATA TEA 85	STRATA SP	STRATA KF
Appearance	Orange Liquid	Colorless	White Powder	Orange Crystals
Active Content	42%	74%	>99%	>99%
pH	6,5 – 7,0	10 – 12	–	–
Density	1,2g/ml	1,05-1,10	–	–
Viscosity at 20°C	20-30 cP	<300cP	–	–

PACKING-STORAGE

STRATA AC52™ is supplied in 20kg pails or 230 gallon IBC. This product can be kept for 6 months in the intact original package if stored away from light or sunlight and at a temperature between 0 and 30°C. CN: 2916-11-00

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HANDLING INSTRUCTIONS

Products have to be injected by a bi-component pump. (Ratio 1:1).

Blends are the following:

PART A : STRATA AC52 + STRATA TEA 85 (from 0.01 to 5%) + STRATA KF (1% to 5%).

PART B : STRATA SP diluted in water (between 2% and 5%).

INJECTION SOLUTION PROPERTIES

VISCOSITY

The viscosity of the STRATA AC52™ injection solutions depend on dilution and temperature. This viscosity will remain almost constant up to the setting point.

SETTING POINT

The gelling is slower at low temperature, but is still fast even below 0°C. Resin dilution extends the setting time for constant STRATA AC52™ + STRATA TEA 85 and STRATA SP concentrations.

In acid conditions the reaction is slowed down, while under alkaline conditions the reaction is speeded up. The presence of minerals and metals (especially iron and copper) may increase or decrease the rate of setting, depending on their concentration.

DIMENSIONAL CHANGES OF THE GELS

When immersed in water, the unconfined gel can absorb up to 2 times its own weight of water in a few weeks without cracking. Under humid conditions, the volume of the gel remains approximately constant. In the absence of water, the gel shrinks slowly, without cracking. These dimensional changes are reversible and do not degrade the gel.

MANIPULATION

When handling STRATA AC52™ the recommendations described in the Material Safety Data Sheet must be followed.

Stainless steel or plastic (PVC, polyethylene or polypropylene) containers only, must be used. STRATA TEA 85 and STRATA SP shall not be brought directly into contact with one another without having been diluted before in resin or water.

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Strata AC42™

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