

Flowchem VE SL

Product description

Flowchem VE SL is a shrinkage compensated and modified, self-smoothing vinyl ester resin based, self-smoothing floor topping system with excellent chemical and mechanical resistance.

Features and Key Benefits

- Fast curing.
- Excellent temperature resistance. In service up to 160°C.
- Very high chemical resistance to a wide range of acids, alkalis and solvents.
- Shrinkage compensated.

Product Information

Applications

Flowchem VE SL is used for protection of concrete floors and horizontal surfaces in containment bunds and other primary and secondary containment areas etc. against heavy chemical and/or mechanical stress and thermal corrosion conditions.

Certificates/approvals

CE according EN 13813 (when used as part of complete system)

Environment and Health

Follow the appropriate Occupational Health and Safety Guidelines applicable to the location where the application is undertaken.

For more information, please refer to the safety datasheets for the individual components.

Technical Information

Technical Characteristics (liquid state)

Appearance	A: Flowchem VE SL resin - pigmented liquid B: Flowchem VE Accelerator – purple liquid C: Flowchem VE Curing Agent – transparent liquid D: Flowchem VE SL filler
Mixing ratio at +20°C(A/B/C/D)*	100 / 0.3 / 2 / X by weight
Pot life at +10 / 20 °C	90 / 45 min
Density at +23°C (EN ISO 1183)	1.7 kg/dm ³ (mixed (A/B/C) / D – 1 / 2.5)
Curing time at +20 °C:	Full cure: after 3 days
Foot traffic at +20°C	6 hours

* The mixing ratio differs with the temperature (A/BC)/D

Technical Characteristics (cured state)

Volume shrinkage at 20°C – Rili4 2.5.3.2.1	< 0.003%
Compressive Strength (EN ISO 604)	>45 MPa
Barcol Hardness (ASTM-D2583)	>40 (model GYZJ 934-1)

Colour

See system build-up, satin gloss

Packaging

The Flowchem VE SL components are supplied in the following pack sizes:

- Flowchem VE SL resin: in lacquered metal drums of 25 kg.
- Flowchem VE Accelerator: in metal cans of 1 kg
- Flowchem VE Curing Agent: in plastic bottles of 1 kg
- Flowchem VE filler: in paper bags of 18 kg

Storage

Store in dry area, in unopened, original containers in temperatures +5 °C to +25 °C. Protected from freezing, out of direct sunlight, moisture or contaminant ingress.

Shelf-life

Flowchem VE SL-resin: 6 months from manufacture day when stored correctly in the original, unopened packaging as supplied.

Flowchem VE Accelerator and Curing agent: 9 months from manufacture day when stored correctly in the original, unopened packaging as supplied.

Flowchem VE SL Filler: 24 months from manufacture day when stored correctly in the original, unopened packaging as supplied

Usage Guidelines

Application conditions

Ambient temperature range:	+5°C - +30°C
Substrate temperature range:	+5°C - +30°C
Ambient relative humidity:	< 95 %
Substrate relative humidity	<4.5 % (Tramex scale or 75% RH BS8203)

- To ensure best application behaviour of material it is recommended to condition the containers for at least 24 hours in +15 °C - +25 °C prior to application.
- The recommended substrate temperature is 15 - 25°C, but not less than 5°C and more than 30°C.
- **During application and initial curing of product, substrate temperature needs to be at least 3°C higher than dew point temperature.**
- To assess possibility of application outside of these conditions or application temperatures, please consult our Technical Department.
- The styrene in the resin component can be smelt at very low concentrations (from 2 ppm onwards). Follow the appropriate national guidelines.

Surface Preparation

Substrates must be mechanically prepared to be free of cement laitance, dust, oil and any other contamination, any surface defects and blowholes must be prefilled and levelled.

The substrate pull-off value must be tested to be at least 1.5 MPa and the surface profile / roughness of the concrete must be at least 0.5 mm.

For further details see our "General preparation and application guidelines for Flowchem VE floor protection systems".

Mixing

Mix the whole drum of Flowchem VE SL Resin with an electric drill and paddle to disperse any possible settlement.

Weigh out the required quantity and add 0.3% (b/w) of Flowchem VE Accelerator and mix well for 2 min (Note: the % of the accelerator required can increase at lower temperatures please consult our Technical Department for specific advice).

Add 2% (b/w) of Flowchem VE Curing Agent and continue to mix thoroughly for 2-3 min and then the resin is ready to mix with the Flowchem VE SL filler.

Note: Never mix the Accelerator directly with the Curing Agent.

Pour the required amount of the Flowchem VE SL Filler (graded quartz aggregate) into a forced-action pan mixer (Creteangle, Zyclos or similar) and add the prepared Flowchem VE SL Resin.

Note: The mixing ratio differs with the temperature: 1 to 2 at ambient, 1 to 2.5 if above 25°C, 1 to 1 when below 16°C.

After 2 to 3 minutes compulsory mixing, the Flowchem VE SL is ready for application.

Note: Flowchem VE SL-Resin already contains Flowchem VE Topcoat Additive, so the Flowchem VE Topcoat Additive **should not** be used in the Flowchem VE SL system.

Application

Priming the surface

The prepared concrete surface must first be sealed with Flowchem VE Primer

Application of Flowchem VE SL

Pour the Flowchem VE SL immediately onto the primed substrate to be coated in a strip width-wise (**Note:** This reduces the rate of the exothermic reaction in the mixing pan and prevents this shortening the working time).

Apply the freshly mixed Flowchem VE SL as a slurry by suitable trowel (notched if preferred for control), and/or squeegee, in a layer thickness of nominal 3-mm (**Note:** It is recommended to work in strips of maximum 4m wide).

Use a spiked roller to de-aerate the freshly applied Flowchem VE SL and allow to cure and harden.

Coverage

A 3-mm layer requires approximately 4.8 kg of mixed (1 / 2) Flowchem VE SL material per m².

Cleaning

Clean using Flowchem VE Equipment Cleaner. **Acetone should be used during the application** to clean the Teflon or Metal deaeration rollers! Not styrene (it will make everything sticky).



Technical Service

Contact Tremco CPG “Country”

Guarantee

Tremco CPG “Country” warrants all goods to be free from defects and will replace materials proven to be defective but makes no warranty as to appearance of colour. The information and recommendations herein are believed by Tremco CPG “Country” to be accurate and reliable.