



SPECIALITY ENGINEERING CHEMICALS

ENGINEERED SOLUTIONS

SpECTop SRE500

SOLVENT-FREE HIGH BUILD, EPOXY FLOOR COATING



DESCRIPTION

SpECTop SRE500 is a two-part epoxy resin system which produces a high build, hard wearing, chemically resistant floor coating. Where required SpECTop NS GRAINS may be included to produce a slip resistant surface.

TYPICAL USES

SpECTop SRE500 may be used in industrial and commercial situations to provide an abrasion resistant finish in areas subjected to traffic, chemical attack and surface water, such as:

- Car parks
- Loading bays
- Walkways
- Chemical production facilities
- Dairies
- Beverage production units
- Wet working area

ADVANTAGES

- Abrasion resistant
- High build and therefore requiring low maintenance
- Resistant to a wide range of chemicals (see Chemical Resistance Chart)
- Solvent free to minimise disruption
- Slip resistance to suit site conditions
- Available in a range of colours to demarcate areas and provide a light reflective floor

TECHNICAL DATA

PROPERTIES	VALUES
Typical results @ 20°C	
Compressive strength (BS 6319)	60±5 N/mm ² @ 7 days
Flexural strength (BS 6319)	40±5 N/mm ² @ 7 days
Tensile strength	15.0 N/mm ²
Pull Off strength	3 N/mm ²
Water Absorption	0.01%
Coefficient of thermal expansion	1.02x10 ⁻⁶ /°C
Solids content	100%
VOC Content (USEPA 24)	<25 g/L



PROPERTIES

VALUES

Pot life	30 mins
Intercoat time (min)	12 hrs
Intercoat time (max)	36 hrs
Exposure to Foot traffic	1 day
Exposure to Vehicular traffic	3 days
Exposure to Chemicals	7 days
Typical system thickness (dft, excluding NS Grains)	400µm

CHEMICAL RESISTANCE CHART

10% Lactic Acid	Resistant
10% Citric Acid	Resistant
10% Nitric Acid	Resistant
10% Acetic Acid	Resistant
50% Hydrochloric Acid	Resistant
50% Sulphuric Acid	Resistant
5% Bleach	Resistant
Saturated Sugar Solution	Resistant
Saturated Urea Solution	Resistant
Petrol	Resistant
Oil	Resistant
Kerosene	Resistant
50% Sodium Hydroxide	Resistant
10% Ammonia	Resistant
50% Phosphoric Acid	Resistant
25% Nitric Acid	Resistant
Butanol	Resistant
Skydrol	Resistant
Industrial Methylated Spirit	Resistant

Note:

If chemical spillage occurs, immediately remove the spillage and wash down with water to prevent any attack or discolouration.





APPLICATION

Preparation

It is essential that adequate preparation is carried out prior to the application of SpECtop SRE500.

Grit blasting is recommended to ensure the removal of all laitance, grease and oil. The resultant surface should be dry and dust free. Cracked and damaged areas must be made good with appropriate repair materials.

Priming

SpECtop SRE500 may be applied to properly prepared concrete without the use of a primer providing:

- The residual moisture of the substrate is less than 5%. when tested in accordance with ASTM F 1869.
- The wet film thickness for the first coat does not exceed 250µm. It is essential that a wet film thickness gauge is used to monitor average thickness during application.

Otherwise, depending on the application, you may use SpECtop Primer F1/ SpECtop Primer EP121/ SpECtop Primer FX/ SpECbuild Primer E1 as follows:

The contents of the curing agent should be emptied into the base component and stirred with a spatula until the product appears uniform.

The mixed primer should then be applied to the prepared substrate by a stiff brush at 10-15 m²/litre.

If the primer appears to be absorbed into the surface easily, it will be necessary to apply a second coat once the initial coat is tack-free. It is essential that the primer is tack-free prior to the application of the topping. The application of SpECtop SRE500 should commence between 8-24 hours after priming. If this period is exceeded, then the surface of the primer should be lightly abraded and a fresh priming coat applied.

If a slip resistant profile is required, the first coat is completely blinded with SpECtop NS GRAINS. This should be carried out while the coating is still wet.

When the first coat has reached its initial cure (12 hours @ 20°C), the excess aggregate should be removed by vacuum from the surface.

The top coat is then applied again by a medium pile roller. Where a smooth finish is required, the top coat is applied as per the first coat.

For slip resistant floors the topcoat of SpECtop SRE500 should provide a continuous film of material and also completely seal the surface of the SpECtop NS GRAINS. The consumption rate of materials for this type of application will be heavier for the top coat due to the increase in the surface area to be coated.

Where UV resistance is required, overcoat with SpECtop UV.

EQUIPMENT CLEANING

All equipment may be cleaned of uncured material using SpECtop Cleaning Fluid.

PACKAGING AND YIELD

SpECtop SRE500 @ 200µm wft:	4.5 litre and 15 litre units 1st coat - 5.0 m ² /litre 2nd coat - 5.0 m ² /litre (smooth finish) 2nd coat - 4.0 m ² /litre (slip resistant)
SpECtop NS GRAINS Sizes	25kg bags @ 2kg net/m ² Medium 0.4 - 0.7mm
SpECtop Primer F1 @ 10-15 m ² /litre	1 litre pack gives 10-15m ² 5 litre packs gives 50-75m ²
SpECtop Primer EP121 10-20 m ² /l/coat	5 litre units. Application rate is 50µ to 100µ thickness
SpECtop Primer FX @ 5 m ² /litre	1 litre & 5 litre pack gives 5m ²
SpECbuild Primer E1 5 m ² /litre	1, 2 and 5 litre units.
SpECtop UV @ 100µm dft:	4.5 litre and 15 litre units 10.0 m ² /litre

The rates indicated are for guidance only. The consumption of material will be dependent on the porosity and the condition of the substrate.

APPLICATION TEMPERATURE RANGE

Minimum	5°C
Maximum	35°C

STORAGE AND SHELF LIFE

When stored in a cool environment, in original unopened containers, the material has a shelf life of 12 months.

HEALTH AND SAFETY

Contact with skin and eyes should be avoided. It is essential that adequate ventilation is provided and that all personnel avoid inhaling the vapours produced. If working is necessary in a confined area it is strongly recommended that sealed respiratory equipment is utilised.





Eye contact

Rinse with copious amounts of clean water and seek medical attention.

Skin contact

Rinse with copious amounts of clean water followed by thorough cleaning with soap and water.

DO NOT USE SOLVENTS

Ingestion

Seek immediate medical attention.

DO NOT INDUCE VOMITING

FLAMMABILITY

SpECtop SRE500, SpECtop Primer FX, SpECtop Primer EP121 is non-flammable.

SpECtop Primer F1, SpECbuild Primer E1, SpECtop UV and SpECtop Cleaning Fluid are flammable. Do not expose to naked flame or other sources of ignition.

FLASHPOINT

SpECtop SRE500	>150°C
SpECtop Primer F1	>60°C
SpECtop Primer FX	>150°C
SpECbuild Primer E1	>150°C
SpECtop Cleaning Fluid	>40°C
SpECtop UV	†>40°C

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