

S&P Tecnogrout-FIB

Structural repair mortar



A Simpson Strong-Tie® Company

The information in this technical data sheet is valid for the S&P range of products, systems and solutions.
Please note that the information in your country may vary. Visit sp-reinforcement.eu to find your local branch.

DESCRIPTION

S&P Tecnogrout-FIB is a shrinkage compensated, thixotropic, mono-component, cement-based construction grout, made up from selected aggregates, additives and synthetic fibre to prevent cracking. The product is packed ready to use.

S&P Tecnogrout-FIB is developed for repair and coating applications requiring high mechanical performance and ease of application. Its high pH value acts as a protective barrier on reinforcing bars, therefore reducing the risk of concrete carbonation. It can be applied by trowel, spatula or sprayed as shotcrete (gunite). The high adhesion properties of the grout to concrete allow overhead application without slumping.

WHERE TO USE

- Concrete protection against de-icing salts
- Repair of concrete structures
- Repair of honeycombs and cracks in tanks
- Filling of formwork tie sleeves
- Coating of overhanging balconies and bridges
- Repair of spillways
- Plastering of manholes
- Cooling Towers
- Plastering of lift (elevator) shafts
- Chimneys
- Coating of channels and tunnels
- Levelling of uneven surfaces

PERFORMANCE FEATURES

- Excellent workability
- Good adhesion
- Sulphate and seawater resistant
- Protects the substrate
- No bleeding into substrate
- Permeable to water vapour
- Reduces the roughness of channels
- Good chemical resistance performance
- Compensated shrinkage (light expansion)
- Low chromates content
- Impact and Abrasion Resistance

GENERAL FEATURES

PRODUCT DATA

Generic description

S&P Tecnogrout-FIB

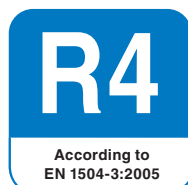
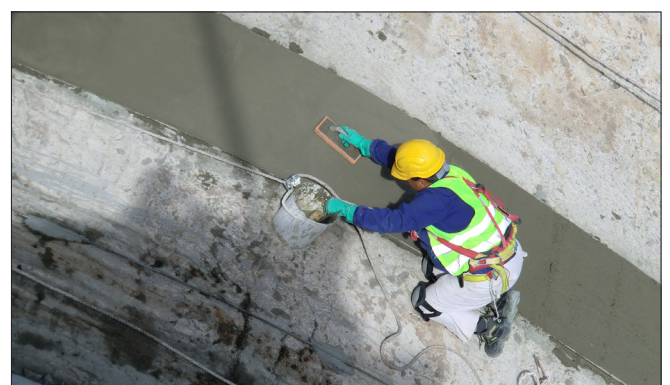
Fornecimento

25 kg bags

40 x 25 kg bags per pallet

Storage

12 months in original unopened sealed bags in a dry and cool place



S&P Tecnogrout-FIB conforms to EN 1504-3

MECHANICAL PROPERTIES

Property	Test method	Minimum requirement according to EN 1504-3, R4 mortar	Value
Bulk density (powder)	-	-	1.8 kg/dm ³
Hardened density	EN 12190	-	~ 2.25 kg/dm ³
Maximum aggregate size	-	-	2 mm
Water dosage per 25 kg bag	-	-	14-16 % / 3.5-4 litres
Consumption	-	-	~ 20 kg/m ² per cm thickness
Application thickness	-	-	5-30 mm per layer
Pot life	-	-	30 minutes at 20 °C
Hardening time	-	-	~ 2 hours
Application temperature	-	-	5 to 35 °C
Compressive strength	EN 12190	≥ 45 MPa (28 days)	> 25 MPa (1 day)
			> 40 MPa (7 days)
			> 50 MPa (28 days)
Flexural tensile strength	EN 12190	-	> 5.0 MPa (1 day)
			> 7.0 MPa (7 days)
			> 8.0 MPa (28 days)
E-Modulus	EN 13412	≥ 20000 MPa	> 20000 MPa
Water absorption	EN 13057	≤ 0.5 kg/m ² h. ^{0.5}	< 0.5 kg/m ² h. ^{0.5}
Carbonation resistance	EN 13295	d _k < MC(0.45)	Pass
Adhesion to concrete	EN 1542	≥ 2 MPa	> 2 MPa
Bond strength after 50 freeze-thaw cycles	EN 13687-1	≥ 2 MPa	> 2 MPa
Chloride ion content	EN 1015-17	≤ 0.05 %	< 0.05 %

Above test results are carried out at +20 °C and 65 % RH mixing with 15 % water unless otherwise stated.

APPLICATION

Substrate preparation:

Mechanically abrade concrete surface to completely remove debris and loose particles. Wet the surface until complete saturation is achieved and allow standing water to either evaporate or be absorbed into the substrate. Alternatively, remove standing water using a sponge.

Mixing:

Mix the mortar either by hand or in a concrete mixer, adding 14-16 % of water (3.5-4 litres per 25 kg bag). Mix until completely lump-free, ensuring that a homogenous mix is achieved.

Application:

Apply the mortar by means of trowel or spatula, or alternatively pouring the grout onto the concrete substrate. Finish the surface to the required roughness grade. Alternatively if spraying the mortar (gunite), install at a max. thickness of 25 mm per layer. In case a bonding agent is required, it is recommended to consult to our Technical department.

Curing:

Once the mortar is installed, surfaces must be kept damp for at least 24 hours.

TESTING

Please contact us if you require any information regarding tests that have been conducted. Test reports may be available.

CLEANING

Tools cleaning

Tools and application equipment must be washed immediately after use. If the product hardens, it can only be removed by mechanical means.

CE MARKING

S&P TecnogROUT-FIB meets the requirements of European Code EN 1504: "Products and systems for the protection and repair of concrete structures - Definitions, requirements, quality control and evaluation of conformity - Part 3: Structural and non-structural repair", for grouts CLASS R4.

HEALTH & SAFETY

Important safety instructions

For detailed safety information, we recommend that you see the current safety data sheet which is available on www.sp-reinforcement.eu or you can contact us on +41 41 825 00 70.

S&P's range of products are for industrial use. They must be installed by specialised personnel and competent professionals with adequate training. The installation instructions must be followed and can be found in S&P application manuals and several "Guideline" documents / existing technical notes.

The information in this technical data sheet is valid for the S&P range of products, systems and solutions. Please note that the information in your country may vary. Visit sp-reinforcement.eu to find your local branch.

The information and data in this technical data sheet serve to ensure the normal intended use and normal application suitability; the information and data are based on our knowledge and experience. They do not absolve the user from their own responsibility to check the suitability and application method.

The rights to make changes to product specifications are reserved. Furthermore, our general sales and delivery terms apply. The current, most recent product data sheet is valid, and should be requested from us.

Head Office

S&P Clever Reinforcement Company AG

Seewernstrasse 127

CH-6423 Seewen

Phone: +41 41 825 00 70

Fax: +41 41 825 00 75

Web: www.sp-reinforcement.ch

E-Mail: info@sp-reinforcement.ch