

S&P Tecnogrout-N Rapido

Rapid setting fluid 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-N Rapido is a non-shrinkage mortar based on mineral products, with high mechanical characteristics and great fluidity. The chloride-free, non-metallic flowable grout is specially designed for cases that require an immediate and quick repair. S&P Tecnogrout-N Rapido is a non-bleeding, self-levelling mortar with good chemical resistance (marine waters, wastewater, sulphates). Its use is ideal in applications subject to heavy loads, as well as in cases where the design requires a high fluidity and quick commissioning: turbines, machinery, compressors, reinforcement of structures, support of beams, anchorage, etc. S&P Tecnogrout-N Rapido is preferably applied at filling heights between 30 and 80 mm (S&P Tecnogrout-N/PR Rapido is preferably applied at filling heights between 5 and 30 mm), except in confined fillings, in which it can be used in any depth.

WHERE TO USE

- Equipment foundations (e.g. heavy machinery)
- Anchoring of rails and bolts
- Filling of abutment bases
- Filling of joints in beams
- Repair of joints on bridges
- Reinforcement of concrete structures
- Injections
- Support of beams on bridges
- Assembly of prefabricated structures
- Rapid concrete repairs
- Emergency works

PERFORMANCE FEATURES

- Slight expansion (non-shrinking)
- Water resistant
- Various application thicknesses
- Sulphate resistant
- No bleeding into substrate
- Carbonation resistant
- Self-levelling
- Good chemical resistance to sea water, wastewater, sulphates
- Fast commissioning

GENERAL FEATURES

PRODUCT DATA

Generic description

S&P Tecnogrout-N Rapido & Tecnogrout-N/PR Rapido

Size

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-N Rapido conforms to EN 1504-3

S&P Tecnogrout-N/PR Rapido conforms to EN 1504-3

MECHANICAL PROPERTIES

	S&P TecnogROUT-N/PR Rapido	S&P TecnogROUT-N Rapido
Compressive strength	> 9 N/mm ² (3 hours) > 14 N/mm ² (6 hours) > 39 N/mm ² (1 day) > 56 N/mm ² (7 days) > 68 N/mm ² (28 days)	> 11 N/mm ² (3 hours) > 17 N/mm ² (6 hours) > 44 N/mm ² (1 day) > 63 N/mm ² (7 days) > 73 N/mm ² (28 days)
Flexural tensile strength	> 3.4 N/mm ² (3 hours) > 3.9 N/mm ² (6 hours) > 6.3 N/mm ² (1 day) > 7.3 N/mm ² (7 days) > 8.8 N/mm ² (28 days)	> 3.4 N/mm ² (3 hours) > 4.4 N/mm ² (6 hours) > 5.8 N/mm ² (1 day) > 7.3 N/mm ² (7 days) > 8.8 N/mm ² (28 days)
Bulk density	2200 kg/m ³	2270 kg/m ³
Application thickness	5 - 30 mm per layer	30 - 80 mm per layer
Pot life	15 Minutes	15 Minutes
Hardening time	Approx. 30 minutes	Approx. 30 minutes
Capillary absorption	< 0.5 kg/m ² h. ^{0.5}	< 0.5 kg/m ² h. ^{0.5}
Adhesion to concrete	> 3.2 N/mm ²	> 3.4 N/mm ²
Carbonation resistance	Pass	Pass
Application temperature	+5 °C to +35 °C	+5 °C to +35 °C
Service temperature	Upto +400 °C	Upto +400 °C
Bond strength (freeze-thaw after 50 cycles)	> 3.2 N/mm ²	> 3.1 N/mm ²
E-Modulus	> 42000 N/mm ²	> 38000 N/mm ²
Slipping resistance	Class III	Class II
Adhesion to corrugated bar	18.6 N/mm ²	16.5 N/mm ²
Fluidity	Approx. 27 cm cone penetration	Approx. 26 cm cone penetration

*Tests carried out at +20°C and 65 % RH.

APPLICATION

Substrate preparaion:

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 grout either by hand or in a concrete mixer, adding 12-13 % of water (3-3.25 litres per 25 kg bag). Mix for 4-5 minutes until completely lump-free, ensuring that a homogenous mix is achieved. Due to its rapid setting, do not mix more than can be used within the next five minutes. At temperatures below 10°C warm water is recommended to accelerate setting. On the other hand, the use of cold water in hot weather will allow a longer pot life of the product.

Application:

The formwork should be sealed to prevent material from leaking and should also be approximately 3 cm higher than the final level of the grout.

Pour from one end until completion of the the filling with the assistance of gravity.

Curing:

At 20 °C S&P TecnogROUT-N Rapido sets in 15 minutes, but it is recommended not to walk or work on it for 2 hours following application.

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-N Rapido meets the requirements of 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.

S&P TecnogROUT-N/PR Rapido meets the requirements of 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

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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.

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