

S&P Resin 230 HP

Levelling and 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 Resin 230 HP, epoxy levelling and repair mortar, is a solvent-free, thixotropic, gre 3-component epoxy based mortar with an inert quartz sand filler component. It is a class R3 mortar.

WHERE TO USE

- To level out uneven surfaces
- Material characteristics, of the fresh and hardened adhesive, are designed specifically to satisfy the special requirements of the S&P structural component reinforcement system
- Repair and reprofile concrete: surfaces, edges and corners of concrete elements

PERFORMANCE FEATURES

- Thixotropic - enables application of thick layers
- Hardens with minimal shrinkage
- Solvent-free
- High mechanical strength
- Stickiness-free hardening - even when there is high air humidity
- Rapid strength development
- Convenient pot life
- Reach all the requirements for a R3 mortar
- Compatible with S&P Resin 55 HP and S&P Resin 220 HP

GENERAL FEATURES

PRODUCT DATA

Generic description

S&P Resin 230 HP

Appearance

Comp. A – Light grey epoxy resin solution, paste
Comp. B – Black hardener for epoxy resin, viscous
Comp. F – White filler, powder

Size

30 kg units (comp. A 10 kg + B 5 kg + F 15 kg)

Storage

Comp. A+B : 24 months in a dry and protected environment
Optimal storage +10°C to +25°C
Comp. F : Indefinitely when stored at room temperature and in dry conditions

CERTIFICATION



This product conforms to EN 1504-3:2004.

Principles and methods according to EN 1504-9: 2008

Principle 4: Structural strengthening (SS):

- Method 4.4: Adding mortar or concrete - R3 Mortar



PREPARATION

Surface Preparation

Reinforcement may only take place if the substrate has an inherent tensile strength of at least 1.0 N/mm² for sheets, or 1.5 N/mm² for S&P C-Laminate applications. The substrate must be free from substances that can impair adhesion (oil, grease, wax, etc.), and must also be dust free, clean, more or less dry and solid. Absorbent and porous substrates have to be impregnated with S&P Resin 55 HP.

Maximum substrate humidity: 4%

Mixing

Stir the individual components separately and then add component A to component B. Mix thoroughly until the colour is uniformly grey and free of any streaks. Pour the mixed material in a different container in order to reveal any inadequacies in the mix. Mix slowly to minimise air entrapment. Add filling component F and mix slowly until the consistency of the mortar is homogenous. The amount of added filler (comp. F) can be varied in order to adjust the consistency of the mortar to fit different uses and requirements.

APPLICATION

S&P Resin 230 HP should be applied by well-trained and experienced specialist.

Apply S&P Resin 230 HP using a spatula within the pot life until the required layer of thickness is obtained.

Maximum layer thickness: 50 mm

Substrate temperature must be at least 3 °C above dewpoint temperature.

Consumption

Approx. 2,05 kg/m² per mm layer of thickness.

MECHANICAL PROPERTIES

Technical data	Test Method	Unit	Minimum requirement according to EN 1504-3, R3 mortar	Value
Density	-	kg/dm ³	-	2 - 2.1
Ratio A:B:F	-	By weight	-	2 : 1 : 3
Pot life	Inhouse tests	Minutes	-	90
Final cure	-	Days	-	7
Application temperature	-	C°	-	+8 °C to +35°C
Compressive strength at 7 days	UNE-EN 12190:1999	MPa	≥ 25	≥ 100
Flexural tensile strength at 7 days	UNE-EN 12190:1999	MPa	-	≥ 40
E-Modulus (compression)	UNE-EN 13412:2008	MPa	≥ 15000	17000
Water absorption	UNE-EN 13057:2002	kg/(m ² .h ^{0.5})	≤ 0.5	≤ 0,001
Carbonation resistance	UNE-EN 13295:2005	-	Dk ≤ MC(0,45)	Pass
Adhesion to concrete	UNE-EN 1542:1999	MPa	≥ 1.5	≥ 3.0
Bond strength after 50 freeze-thaw cycles with de-icing salt immersion	UNE-EN 13687-1:2002	MPa	≥ 1.5	≥ 3.0
Chloride ion content	UNE-EN 1015-17:2000	%	≤ 0.05	0.02

Above test results are carried out in laboratory conditions at +20 °C and 65 % RH unless otherwise stated.

TESTING

Please contact us if you require any information regarding tests that have been conducted.

Test reports may be available.

ACCESSORIES

S&P offers specific tools and accessories to facilitate the processing of resins.

TESTING

All technical data published in this data sheet are based on laboratory tests. Therefore, actual measurements may vary.

Contact us if you have any questions about the tests performed.

CLEANING

Tools cleaning

Mixture that has not yet hardened can be washed off with S&P Cleaner. Mixture that has hardened can only be removed by mechanical means.

WARNING

The shelf life of the resin must be respected.

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.

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.

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