



A Simpson Strong-Tie® Company

APPLICATION INSTRUCTIONS



S&P G-Sheet E
S&P G-Sheet AR



SIMPSON
Strong-Tie

S&P G-Sheet E/AR

Application instructions



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REQUIREMENTS

- Minimum pull-off tensile strength of bearing substrate > 0,2 N/mm²
- Minimum bearing substrate's temperature 3 °C above dew point temperature
- Maximum substrate moisture content < 12 % (with S&P Resicem HP) or < 4 % (with S&P Resin 55 HP)
- Glue handling temperature + 10 to + 35 °C
- Substrate temperature min. + 8 °C max. + 35 °C

APPLICATION



Preparation of workspace.

Measure out and clearly mark the application area.



Sand blast, shot blast or grind using a diamond cup wheel.

Plaster or cement skin must be completely removed.

The optimum surface roughness must be defined depending on the application.



Remove damaged concrete (honeycomb), masonry, loose material, wood pieces, insulation material etc.



Round off corners and edges within a radius of 25 mm (chamfer or re-profile).



Re-profile using S&P Tecnogrout-K or S&P Resin 230 HP.

Cracks > 2 mm must be repaired properly, ensuring a load-transferring connection.



Clean substrate with a vacuum hose.

Substrate must be free of grease and oil.



Tailor the G-Sheet E/AR to size using industrial scissors.

Account for 100 mm in the fibre direction for the anchoring of the SP G-Sheet E/AR. The necessary overlapping perpendicular to the fibre direction is also 100 mm.

Quality assurance

Check sheet type and dimension



Mix the adhesive at a low speed, max. 400 RPM.

Mix using a mixing paddle for approx. 3 minutes.

The glue's ideal temperature while mixing is 15 °C to 25 °C.

When using S&P Resin 55 HP (vapour proof), a prior assessment of special statics requirements is necessary.



Apply S&P Resicem HP (improves vapour exchanges) or S&P Resin 55 HP (vapour proof) onto the substrate.

Distribute evenly with S&P press roller.



Pre-impregnate the S&P G-Sheet E/AR with S&P Resicem HP or S&P Resin 55 HP.

Spread the resin evenly with a rubber spatula and a press roller, **rolling only in one direction, longitudinal to the direction of the fibre.**

For material consumption rates, see table on pg. 6.



Fix the pre-impregnated S&P G-Sheet E/AR onto the substrate.

Make sure that there is overlapping in both directions of at least 100 mm.

APPLICATION



Always roll in the direction of the fibre, and do so until all fibres are moistened and there are no air pockets left in the sheet.

Clean the tools within S&P Resicem HP / S&P Resin 55 HP's pot life using S&P Cleaner.



In this stage of work, also cover the sheets' area in quartz sand. This will act as a rough course to ensure the adhesion of plaster or mortar later on.

If covering the area in quartz sand later, in a different work stage, the area must first be primed with a new layer of S&P Resicem HP / S&P Resin 55 HP.



Image of a completed application on a wall slab.

Full load-bearing capacity is reached after 72 hours, given conditions of 23 °C and 50 % humidity.

Add fire protection as required by the project engineer.

SAFETY

Measures regarding health & safety (protective clothing/accident prevention) are a prerequisite.

Estimated glue consumption rates (depending on the substrate roughness) can be found in the following table:

CONSUMPTION

Product	S&P Resin 55 HP (vapour proof)	S&P Resicem HP (improves vapour exchanges)
S&P G-Sheet E/AR 50/50 (350 g/m ²)	~ 800–1 150 g/m ²	~ 1 350–1 700 g/m ²
S&P G-Sheet E/AR 90/10 - Typ A (440 g/m ²)	~ 900–1 300 g/m ²	~ 1 400–1 800 g/m ²
S&P G-Sheet E/AR 90/10 - Typ B (880 g/m ²)	~ 1 100–1 700 g/m ²	~ 1 500–2 000 g/m ²
Bonding bridge	~ 150 g/m ²	~ 150 g/m ²

More information about the S&P FRP systems and all technical data sheets, as well as all safety data sheets, are available at www.sp-reinforcement.eu

S&P Clever Reinforcement Company AG
 Seewernstrasse 127
 CH-6423 Seewen
 Phone: +41 41 825 00 70
www.sp-reinforcement.ch
info@sp-reinforcement.ch

