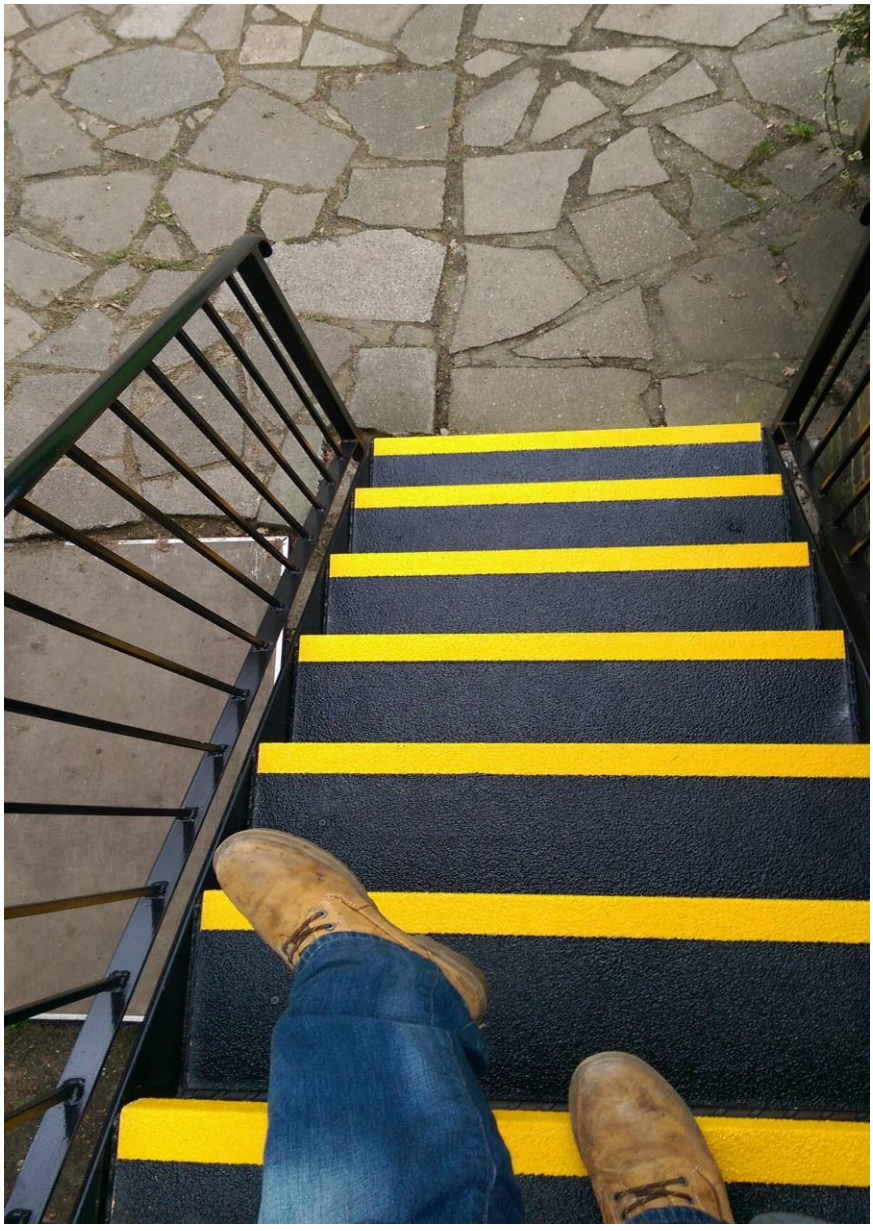
SPD Industrial Stair Tread Covers & Flat Sheet
Data Sheet & Installation Guide



Stair Tread Covers & Flat Sheet Technical Data

Description

The SPD range of industrial stair tread covers and flat sheet are made from high quality GRP (Glass Reinforced Plastic), a combination of resins and reinforcing fibres. The product is used for a vast amount of different applications.

Characteristics

Slip resistant top surface	Impact resistant
Fire retardant option	Corrosion resistant
Lightweight	Non sparking
Non metallic	Tough and durable
Choice of nosing colours	Choice of thickness
Choice of Colours	Choice of sizes
Quick installation	Manufactured to ISO 9001
Very little down time	Meets DDA guidelines
Meets Building Regs.	Useable almost immediately

A Selection of Applications

Walkways	Ramps
Fire escapes	All staircases
Train track crossings	Oil rig platforms
Timber decking	Mezzanine floors
Spiral staircases	Open mesh floors
Forklift areas	Many more

Typical Technical Data

Description:	Anti Slip Stair Tread Covers and Floor Sheets
Top Finish:	***Aluminium Oxide Anti Slip*** grit top surface one of the hardest wearing materials known
Grades:	Coarse Fine

Stock Colours

Stair Tread Covers: Black with Yellow nosing (LVR – Black – 6, Yellow – 81, Visual contrast – 75 parts), Black with White nosing (LVR – Black – 6, White – 86, Visual contrast – 80 parts), all Stone (LVR – 59)

Flat sheets: Black (LVR – 6), Yellow (LVR – 81) and Stone (LVR – 59)
(LVR = Light Reflectance Values)

Thicknesses:	Nominally 4mm thick
Chemical resistance:	Made from ISO resin as standard. Different chemical resistance available, please call our technical department for advice.
Panel sizes:	Stair treads: 3020mm x 345mm (Can be cut to size) Flat Sheets: 2440mm x 1200mm (Can be cut to size)
Panel weights:	Stair treads: 12kg per tread / 10kg per M2 Flat sheets: 27kg per sheet / 9kg per M2
Tolerances (including cut):	+/- 3-4mm
Service temperatures:	-20 to 80°c
Load capabilities:	Credited with no load bearing strength (requires adequate substrate)
Design life:	20+ years (subject to traffic analysis)
General use:	Standard pedestrian traffic
Other info:	Stair Treads and Flat Sheets are made via pultrusion method

Slip Resistant Levels

Measured using the Pendulum test method (WF rubber slider)

Top Surface	Dry Reading	Wet Reading
Coarse grit surface	**95**	**67**
Fine grit surface	**76**	**64**

The UK Slip Resistance Group guide to slip resistance of a floor for able bodied pedestrians.

Four S Pendulum Value	**Potential for Slip**
Above 65	Extremely Low
35 to 65	Low
25 to 65	Moderate
25 and Below	High

To ensure that the above slip resistant levels are maintained the panels should be kept clean.

Installation Guide and Tips

Safety

When installing the products, standard personal protective equipment should be worn as a minimum. These include dust masks, safety goggles, heavy duty gloves and overalls. The materials should be cut in a well ventilated area or close to extraction points. Dust residue can be disposed of using normal waste disposal methods. No special permissions or licences are required at the time of going to print.

Preparation

Ensure that the areas to have the materials fitted are clean, dry and free from loose and friable material. Any "dished" or damaged surface areas should be patch repaired to provide a reasonably flat and consistent surface.

Dry fit all materials to ensure they fit freely and that they sit flat down on the surface. If required, the materials can be trimmed on site to suit, ideally using a skill saw with a 4mm diamond blade or an angle grinder with a 1mm blade.

Please ensure that goggles and gloves are worn at all times when any form of cutting is involved.

We recommend a double fixing method for installing the materials. This consists of an appropriate high strength gap filling adhesive, GripTite Adhesive and suitable mechanical fixings (supplied by us, or similar).

If mechanical fixings are not suitable for your particular application, a high strength structural adhesive can be used on its own but care should be taken to ensure the materials are completely adhered to the substrate and regular checks should be made on the material. In certain circumstances, the materials may be required to be weighted down until a suitable bond has been achieved.

Fitting the Panels

The following assumes you are using the double fixing method, if not, simply follow the same instructions but without the mechanical fixing element.

All substrates:
Apply an approx. 6mm bead (this may need to be increased dependant on the substrate conditions) of the high strength adhesive around the periphery of the underside of the panels approx. 25mm in from the edges. Then, starting from the bottom left corner come up at an angle (approx. 200mm across) and then down at an angle, to create a 'peak and a trough', repeat this until you reach the end (similar to the diagram below). Immediately press the panel firmly to the substrate to ensure adequate transfer of adhesive (depending on the size of the bead, this will elevate the sheet by approximately 1-1.5mm). A firm bond will be achieved in about one hour under normal circumstances and conditions. Secure with mechanical fixings, as below.

Stair Treads:	Drill two holes on each side of the stair tread cover, one approximately 15mm in from the back edge and 15mm from the side. The second one should again be approximately 15mm from the side and approx. 10m back from the contrasting nosing (55mm) For larger treads, it may be necessary to have further fixing points in the centre of the tread.
Riser Plates:	If you are using Riser Plates, these should be fitted before any of the stair treads. Using high strength gap filling adhesive in the same method as above. Push these onto the riser as far down as they will go. When Stair Tread Covers are fitted these will hold the Riser Plates in position.
Flat Sheets:	Drill holes 15mm in from all edges at no more than 300mm apart from the centres. Depending on the width of the panels it may be necessary to provide fixing points at 600mm centres down the middle of the panels. As substrates vary considerably, additional fixings may be required to fix the panels down. If fixing down two pieces of flat sheet that is constrained by sides (i.e. a ramp with wall on either side) a 5mm expansion gap should be considered between the two or more sheets. This gap can be filled with a standard high modulus mastic.

Applying to Substrate

If you are using Riser Plates, these should be fitted to the riser substrates, as above, before commencing the following procedures.

Over Timber (or similar materials)

Step 1	Lay out all pieces of materials on the substrate upside down.
Step 2	Apply the adhesive as stated above. Turn the material over and secure to the substrate, applying body weight to expel any air.
Step 3	Mark materials where holes are to be drilled, Using a 6mm masonry drill bit, drill through the materials only.
Step 5	Once all treads have been pre-drilled, using stainless steel screws (Stainless steel Pozi head 32mm x 4.2mm screws, supplied by us or similar), screw the material down and aim to make the screw fixings flush with the top surface. For hardwoods, a pilot may be required.

Over Steel Checker Plate (or similar)

Step 1	Lay out all pieces of material on the substrate upside down.
Step 2	Apply the adhesive as stated above. Turn the material over and secure to the substrate, applying body weight to expel any air.
Step 3	Using a 3.85mm drill bit, drill through the material and steel checker plate.

Step 4	Once all treads have been pre-drilled, using stainless steel screws (Stainless steel Pozi head 32mm x 4.2mm screws, supplied by us or similar), screw the material down and aim to make the screw fixings flush with the top surface.

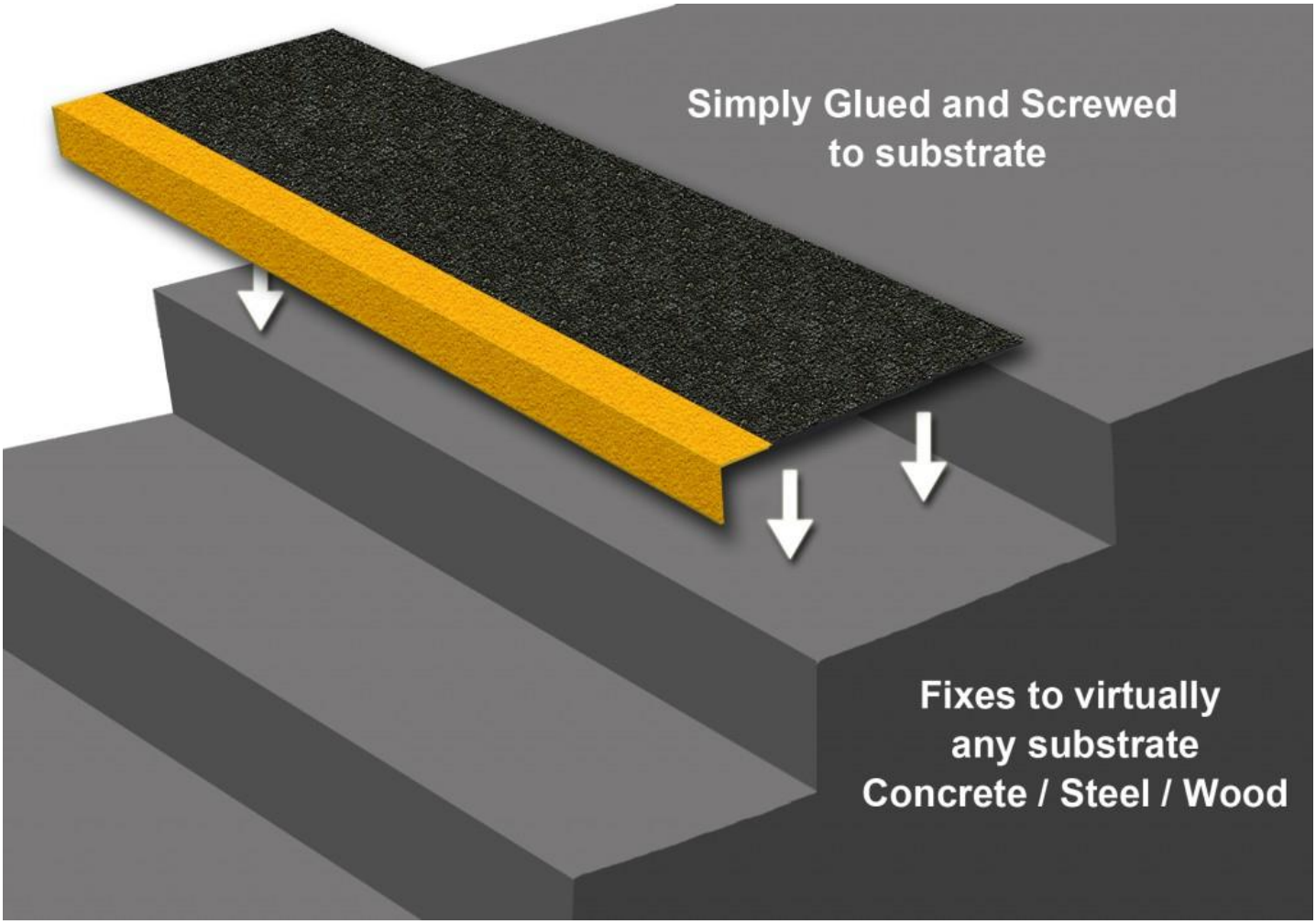
Over Concrete / Ceramic

Step 1	Lay out all pieces of material on the substrate upside down.
Step 2	Apply the adhesive as stated above. Turn the material over and secure to the substrate, applying body weight to expel any air.
Step 3	Using a 6mm masonry drill bit, drill through the stair tread and into concrete.
Step 4	Push rawl plugs into the 6mm drilled hole and tap to ensure that the raw plugs are flush with the substrate.
Step 5	Once all treads have been pre-drilled, using stainless steel screws (Stainless steel Pozi head 32mm x 4.2mm screws, supplied by us or similar), screw the material down and aim to make the screw fixings flush with the top surface.

Over Open Mesh

Step 1	To avoid hitting a load bar of the open mesh, place the materials on the open mesh area, then from underneath, mark where you want the fixing to go.
Step 2	Then using a 10mm drill bit, drill through the materials and ensure it is in the centre of the open mesh.
Step 3	Once all materials have been pre-drilled, using 40mm dome head bolts (supplied by us or similar) push them through the pre-drilled holes.
Step 4	Using a 40mm diameter washer and a nylock nut, tighten up from underneath. (40mm diameter washer and nylock nut supplied by us or similar).

Overview Diagrams



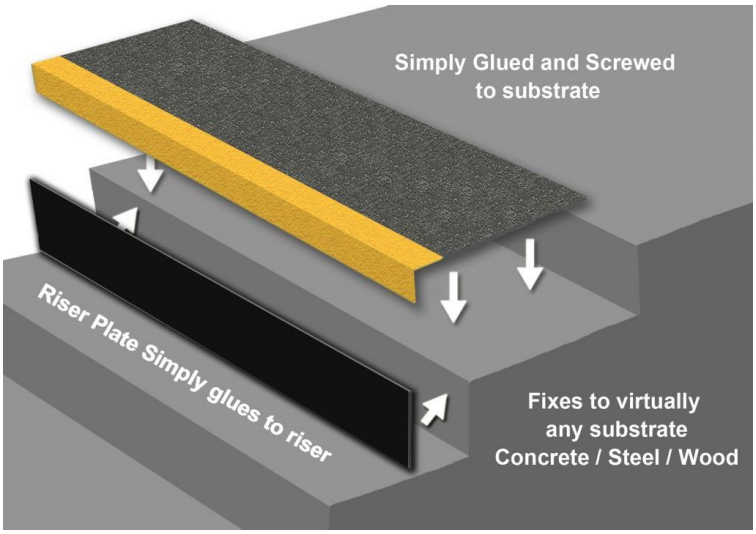


Illustration for guidance purposes only

How to measure

Measure from left to right on the stair tread substrate to get the width/length. It is prudent to allow a 4mm (2mm either side) tolerance to reduce unnecessary cutting on site. For the Depth, simply measure from the front edge (nosing) to the back of the step, again it would be prudent to allow a tolerance of approximately 2mm. We will use this measurement to determine the internal dimensions of the stair tread cover. The external dimension of the stair tread cover will be 10mm more to take into account the thickness of the material and the angled (85º) nosing. If you have an exact 90º angle, please advise when giving dimensions.

For Flat Sheet, the same principal should be followed, again allowing 2mm tolerance all the way around.

Cleaning Guide and Tips

Whilst the products are extremely resilient to dirt and contaminants, it can, as with most other things, become dirty. Dirt and debris can easily be removed using a stiff brush and should be carried out on a regular basis. If the products have been subjected to spillages or the dirt has become embedded, detergents such as Grezoff or similar can be used. It is always advisable to test any cleaning product on the materials before starting the cleaning procedure. This can be done in an inconspicuous area of the installation or, if preferred, a sample can be sent, free of charge for testing purposes.

Using the detergent, warm water and a suitable brush, scrub the areas until clean. The excess water can be removed using a wet/dry vacuum cleaner or suitable absorbant materials.

Where circumstances allow, materials can be power/pressure washed without causing harm. Care should be taken when materials have been stuck down and/or edge sealed as very high-pressure power washing or repeated power washing could cause damage to sealants and adhesives.

General Routine Maintenance

The security of the fixings/adhesive should be checked on a regular basis. Circumstances will vary, based upon the volume of foot traffic etc, but, as a guide, monthly inspections would be advisable.