

SMYTH COMPOSITES

GritPlate Panels

General Technical Specification

GENERAL DESCRIPTION

Smyth Composites range of “GritPlate” products (GRP anti-slip flooring panels) that provide a quick, safe and effective solution to slippery pedestrian areas where slips and fall are a potential hazard.

ULTIMA PANELS (TAY BRIDGE SPEC)

Ultima GritPlate panels are possibly the toughest and most hardwearing anti-slip panels available in the marketplace. Where Ultima panels differ from conventional gritted sheets is due to the fact that an interlayer of a special grit compound is applied and sandwiched between the fiberglass layers providing a massive improvement in wear resistance. (Panels currently under test conditions on the Tay Road Bridge – patent applied for)

STANDARD GRITPLATE PRODUCTION

These panels are hand laid using techniques that have been tried and tested over the last decade. Crucial to the high quality of the product is not only the specific resins and matting used but the way they are combined. Another key factor is the extremely hard wearing “Fused Alumina” or Quartz grit is skillfully applied to the sheets at the “wet stage” which means it sinks into the material making one homogenous sheet that is then finished with a tough gel coat to the same RAL colour of the main sheet thus providing a continuous “through colour”

These sheets, which come “cut to size”, are available in a range of thicknesses, colours, fire ratings and surface profiles as detailed below.

SURFACE PROFILES

Type of grit: Smyth Composites use either Quartz or Fused Alumina. Other types such as Bauxite are available to special order:

- * Ultra-Fine
- * Medium
- * Fine
- * Coarse

FIRE RESISTANCE

Products can be manufactured to either:

1. General purpose (GP) grade (all products)
2. BS 476 Part 7 Class 1 (Surface spread of flame - all products)
3. BS 476 Part 7 Class 2 (Surface spread of flame - all products)

COLOUR RANGE

Black, Grey (7001) and Yellow (08 E 51) as Standard, however panels can be manufactured to the following:

B.S. 4800 Colour Range
B.S. 5252 Colour Range

RAL Colour Range
A colour matching service is also available

SIZE & THICKNESS

Panels can be manufactured to any length but with a width restriction of 1525mm. Standard product range can be manufactured to literally any thickness from 2mm upward. Weight implications for manhandling and transportation may restrict larger sizes.

WEIGHT OF A PANEL

THICKNESS	WEIGHT	THICKNESS	WEIGHT
[mm]	[kg/m ²]	[mm]	[kg/m ²]
3.5mm	6.80	7mm	11.90
4mm	7.80	8mm	13.20
5mm	9.70	9mm	14.40
6mm	10.80	10mm	15.36

THERMAL CO-EFFICIENT OF EXPANSION $30 \times 10^{-6} / ^\circ\text{C}$

FACT: Compared with many other plastics GRP has minimal expansion and contraction characteristics and will not bow and warp in extremes of temperature.

THERMAL CONDUCTIVITY

FYBATEX: 0.2 w/mK

FLEXURAL STRENGTH 193 MPa

FACT: Flexural strength can be enhanced by the addition of woven reinforcement if required.

TENSILE STRENGTH 123 MPa

TENSILE MODULUS 7.1 GPa

FACT: GRP sheet is up to seven times stronger than mild steel on a weight for weight basis.

LOGISTICS

Panels are usually supplied on pallets and can be delivered anywhere in the UK within approximately 10 - 12 working days under normal circumstances. Each panel can be marked with a location code and panel size on the protective covering of the goods if required.

EFFECTIVENESS

It has been proven that Smyth Composites GritPlate has excellent anti-slip credentials as the table below shows:

Pendulum Test Results

Sample Ref	Surface Finish	Surface Roughness Rz	Surface Temperature oC	Orientation	Pendulum Test Value	
					Dry	Wet
F66326	Medium Grit	54.5	24	Along	90	83
				Across	98	85
F66324	Fine Grit	64.7	24	Along	103	87
				Across	100	88

The TRL pendulum Tester has a range of readings from 0 to 150, high values indicating good slip resistance. Guidance on the interpretation of results using the Four S Slider is suggested by the UK Slip Resistance Group as follows:

Potential For Slip	Pendulum Test Value
High	- 24
Moderate	25 – 35
Low	36+

Exceptional Anti-Slip Surface: BS7976-2

Due to the wide variety of products within this range these Technical Specifications should be considered as a guide only. Please contact us if more specific product qualities and performance ratings are required.

Smyth Composites Limited operate as a “Toll Manufacturer” and therefore advise that Customers MUST satisfy themselves that the products they order are fit for the intended purpose.