



# TECHNICAL DATA SHEET

## Description

**Multiboard REG** is a high quality extruded plastic sheet is manufactured from recycled Low Density Polyethylene (LDPE) plastic. The recycled LDPE plastic is reprocessed to form a homogenous section of solid LDPE which is extruded through a die, calendar rolled, cooled and cut in a single process.

Multiboard REG may be used to construct highly durable and weather resistant products which will exhibit the following benefits:

- Long life expectancy
- Maintenance free
- Highly resistant to impact and wear
- Non-toxic
- Non-leaching
- Non-sparking
- Unsupportive of organic growth
- Non-absorbent
- Will not rot
- Slip resistant
- Easily cut, machined drilled and fixed

## Applications

Multiboard REG is used widely across many industry sectors, such as:

- Agriculture
- Materials handling/ packaging
- Equestrian
- Industrial
- Landscaping
- Fabrication
- Building & Construction

## Multiboard REG Options

Multiboard REG is available from stock in the following options:

COLOUR	SIZE		THICKNESS				
			3mm	6mm	9mm	12mm	18mm
Grey	2440mm x 1220mm	Approx 8ft x 4ft		✓	✓	✓	
Black	2440mm x 1220mm	Approx 8ft x 4ft	✓	✓	✓	✓	✓
Grey	3000mm x 1500mm	Approx 10ft x 5ft		✓	✓		
Black	3000mm x 1500mm	Approx 10ft x 5ft		✓	✓	✓	

*Other sizes and colours are available subject to minimum order quantities*

## Product Performance

Test results have been obtained using a typical production sample tested at an independent test laboratory. Please note that recycled plastics are, by their nature, variable. The values following should be regarded as indicative of the material. Further guidance is available from gop. Please also see the User Guide.

### Multiboard REG

Property	Value	Units	Test method
Compressive Strength	110	MPa	BS EN ISO 604:2003
Compressive Modulus	243	MPa	BS EN ISO 604:2003
Tensile Strength at Yield	10.8	MPa	BS EN ISO 527:1996
Tensile Strength at Break	10.4	MPa	BS EN ISO 527:1996
Tensile Elongation at Yield	176	%	BS EN ISO 527:1996
Tensile Elongation at Break	186	%	BS EN ISO 527:1996
Tensile Modulus	316	MPa	BS EN ISO 527:1996
Flexural Strength	10.8	MPa	BS EN ISO 178:2010
Flexural Modulus	299	MPa	BS EN ISO 178:2010
Thermal Expansion	1.8	Mm/m/10°C	
Impact Resistance	28.6	kJ/m <sup>2</sup>	BS EN ISO 179-1
Water Absorption	0.44	Wt %	BS EN ISO 62-1999
Density	0.96	g/cm <sup>2</sup>	BS EN ISO 1183-1:2004
Slip resistance (wet conditions)	32	Acceptable	BS 7976-2:2002

## Surface Finish

Multiboard REG has an embossed surface which provides a good level of Scratch and slip resistance.



## Variability

The performance of products manufactured from recycled material is susceptible to variability from the feedstock, therefore the published technical data is offered for guidance purposes only. The data has been obtained from extracting random test samples from the production process and subjecting those samples

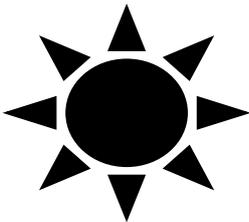
to industry standard test regimes performed by a reputable, independent test house. Variability within the feedstock may also impact upon finish and colour uniformity.

### Manufacturing tolerances

The manufacturing process used to make Multiboard REG may be influenced by external factors and, as such, the following manufacturing tolerances are allowable:

Size	Thickness	Maximum allowable	As specified +5%
		Minimum allowable	As specified -5%
	Width	Maximum allowable	As specified +6mm
		Minimum allowable	As specified -0mm
	Length	Maximum allowable	As specified +10mm
		Minimum allowable	As specified -0mm
Thread pattern	Maximum allowable	2.0mm	
	Minimum allowable	1.1mm	
Straightness	Square	Maximum allowable	5mm per sheet
		Deflection	Maximum allowable
			For Machine Direction line which results in bowing or warping

### Thermal movement



All plastics are susceptible to thermal expansion and contraction with temperature changes. Allowances for thermal movement should be incorporated into the design and construction of structures using Stokbord® Sheet, to prevent warping and buckling. Allowances within the structure for thermal movement are recommended as shown in the table below:

The following table assumes the following:

- Service temperature range of -10°C to +35°C
- Thermal expansion and contraction up to 2.0mm/ 1m / 10°C Product is conditioned to ambient temperature prior to installation

Ambient Temp °C	Potential for Expansion per 1 m	Potential for contraction per 1 m
-10	+9mm	0mm
-5	+8mm	-1mm
0	+7mm	-2mm
+5	+6mm	-3mm
+10	+5mm	-4mm
+15	+4mm	-5mm
+20	+3mm	-6mm
+25	+2mm	-7mm
+30	+1mm	-8mm
+35	0mm	-9mm

*Note that detailed information regarding the fabrication of Multiboard REG can be found in the User Guide.*

### **Fire conductivity**

Multiboard REG is difficult to ignite, however, should the installation be involved in a developed fire, the spread of flame is commensurate with BS 476 Part 6 spread of flame Class 3. Multiboard REG may be extinguished by employing an A, B or C classified fire extinguisher.

### **Chemical resistance**

Multiboard REG has excellent chemical resistance to a wide range of everyday chemicals and cleaning agents at ambient temperature

Materials	Resistance to chemical attack		Comments
	20°C	60°C	
Water	Good	Good	
Sea Water	Good	Good	
Common Detergents (liquid)	Good	Good	
Sodium Chloride (common salt)	Good	Good	
Diesel oil	Good	Limited	Tests refer to 'full immersion'
Petroleum (Gasoline)	Limited	Not satisfactory	Tests refer to 'full immersion'
Alcohol (40% ethanol)	Good	Limited	Tests refer to 'full immersion'
Alkalis and acids	Good	-	Contact Centriforce for information