KEDEL
ECO-FRIENDLY PLASTIC PRODUCTS

Recycled Plastic Stormboard

Oswald Street
Burnley
Lancashire
BB12 0BY

Specifications Storm Board High Impact (HI) and Shop Fitting (SF)

Dimensions	2440 x 1220 x 19 mm (cut-to-size)
Weight	approx. 30 kg
Density	approx.. 589 kg/m^3 (see appendix)
Stiffness	0.35 GPa at 23 ºC (see appendix)
Colour	typical colour of board – speckled black or green
Coefficient of expansion	HI: 3 - 4 mm/2.4m/10ºC SF: 1.5 - 2 mm/2.4m/10ºC
Weather resistance	Weather proof and will not rot - ideal for outdoor use. Impact strength increases, the wetter it becomes. SF requires a coating protection from UV.

Using P2 Storm Board

Coating	For the rendered look, non slip and UV protection, we recommend CorkSol coating.
Fire Retardancy	For walls – CorkSol cork coating certified to Euroclass Bs2D0 or CorkSol stone coating certified to Euroclass Bs1D0.
Cutting	You can cut Storm Board with a hand saw, jigsaw, router, bench saw and skill saw. We suggest running saws at slower speeds to avoid melt and with blades recommended for plastic cutting.
Drilling	Storm Board drills well with wood drill-bits and can be countersunk.
Routing	Storm Board can be CNC routed, we suggest using tungsten carbide tooling.

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Gluing	Wood glues don't work. We suggest Novaseal Signfix Ultrabond adhesive (available from website) or alternatively 2-part polymer glues.
Fillers	Wood filler doesn't work. We suggest Epoxy fillers.
Painting/Printing	Storm Board comes in black/dark grey speckled skin colour. We can colour the skin in manufacturing at an extra cost for large volume. As standard, HI has an anti graffiti finish, so paint has difficulty finding purchase, but Vinyl graphics adhere well, ideal for site hoarding advertisements. SF is paintable and printable.
Screwing	Screws fix well in Storm Board as its elasticity means it stretches and grips the screw's thread. And expansion gap must be allowed when being used outdoors.
Nailing	As Storm Board expands and contracts, we don't recommend nails, as the only fixing method.
Welding	Storm Board HI can be plastic or vibration welded.
Forming	Storm Board HI can be heat formed.
Cleaning	Storm Board can be jet washed at low pressure, with min. 100 mm nozzle distance from board.

Suitability for Use and Warranty

Nothing herein constitutes a warranty express or implied, including any warranty of merchantability or fitness for use, nor is protection from any law or patent to be inferred. The exclusive remedy for all claims is replacement of materials. Contact the sales office for a copy of the complete Storm Board Terms and Conditions of Sale.

Information provided is for guidance only, the customer is solely responsible for making sure Storm Board is fit for purpose. All information is based on tests carried out on panels made in the UK. Using recycled mixed waste material in manufacturing will always account for variation.

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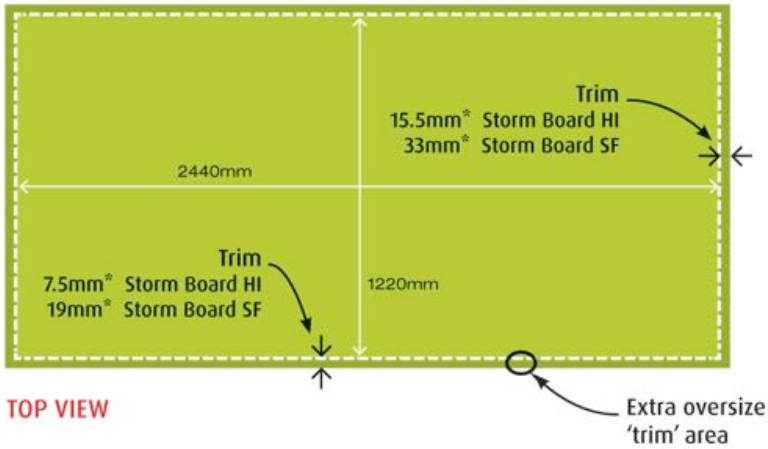
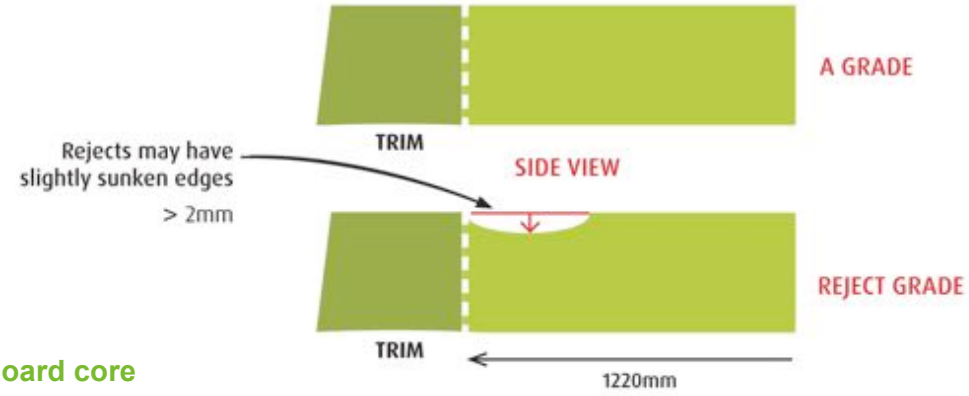
Storm Board sizes

Oversize	This is the standard format direct from the moulding machine (at 20 ºC ambient temperature): HI 2471 x 1235 mm - SF 2506 x 1258 mm
Cut-to-size	2440 x 1220 x 19 mm
Tolerance	+/- 2 mm
Oversize benefits	The skin on the side adds to the board's overall strength and protection during transport.



Storm Board grades



Storm Board core

The core is a non-perfect recycled waste material, which is not compounded or prepared. Voids in the core will occur (<15 mm Ø), which helps make the panel light and stiff.

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APPENDIX – mechanical testing

Mechanical Test results, (Swansea University)			
Property	Storm Board GF (foam and fibre core)	Storm Board HI (foam core)	Plywood (F10 / E5)
Density	695 kg/m^3	589 kg/m^3	500 – 600 kg/m^3
Thermal conductivity	0.259 W/mK	0.193 W/mK	0.13 W/mK
Thermal expansion	128 x 10^{-6} /°C	151 x 10^{-6} /°C	5 x 10^{-6} /°C
Bending stiffness at 23°C	0.39 GPa	0.35 GPa	0.5 GPa
Bending stiffness at 40°C	0.28 GPa	0.2 GPa	
Bending stiffness at 60°C	0.16 GPa	0.11 GPa	
Bending stiffness after 2 weeks water immersion	0.46 GPa	0.41 GPa	0.25 – 0.35 GPa
Bending stiffness after 4 weeks UV exposure	0.45 GPa	0.37 GPa	0.4 GPa
Bending strength at 23°C	12.9 MPa	13.0 MPa	15 MPa
Bending strength at 40°C	10.8 MPa	9.7 MPa	
Bending strength at 60°C	7.7 MPa	7.7 MPa	
Bending strength after 2 weeks water immersion	14.1 MPa	14.6 MPa	~6 - 8 MPa
Bending strength after 4 weeks UV exposure	13.3 MPa	14.2 MPa	12 – 14 MPa
Compressive stiffness at 23°C	0.42 GPa	0.28 GPa	0.4 GPa
Force to buckle panel edgeways	13.5 kN	8.5 kN	12.6 kN
Force to buckle panel lengthways	1.7 kN	1.1 kN	1.6 kN