

# Millboard Enhanced Grain



ANTIQUE OAK - MDE176A



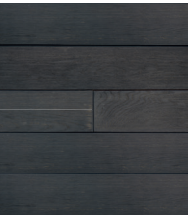
SMOKED OAK - MDE176D



BRUSHED BASALT - MDE176B



LIMED OAK - MDE176L



BURNT CEDAR - MDE176R



GOLDEN OAK - MDE176G

## Weights and Measures

Dimensions (W x D x H)	176 x 3600 x 32mm
Weight Per Board	11.4kg
Fixings per board	22
Boards per m <sup>2</sup>	1.54
Weight per m <sup>2</sup>	17.6kg

The information in this document was correct at the time of going to print, due to our culture of continuous improvement we reserve the right to change the information at any time without prior notice should further tests reveal different results.



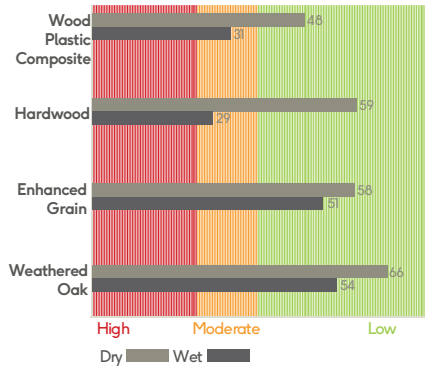
## Millboard Product Specification Guide Enhanced Grain



# Millboard Polyurethane Profile

Polyurethane Resin & Mineral Board (RMB)

## Pendulum Test Values



**Does not warp or rot.** No timber content that will rot or can be eaten by insects



**Low maintenance.** No Stains from food and drink spills, no algal growth. No painting required



**Environmentally friendly.** Base Materials have low impact on global warming and ozone depletion



**Splinter-free.** No real wood content so no splinter



**Dimensional stability.** Very minimal movement in the boards



**Resistant to algae.** Unlike wood there is no protein content to assist algal growth



**Slip resistant.** High grip surface much safer than wood especially in the wet



**UV & weathering stability.** Tested in all weathers at temperatures from -20° to 70°



**Moulded from real oak.** Not extruded like plastics. Looks like natural oak



**Stain Resistant.** Non porous, so will not absorb, drink, food, fats etc.



**Lost Head fixing** using Durafix stainless steel trimhead screws



**Low carbon footprint**

# Working specification for all decking boards

Polyurethane Resin & Mineral Board (RMB)

## Working specification for all decking boards

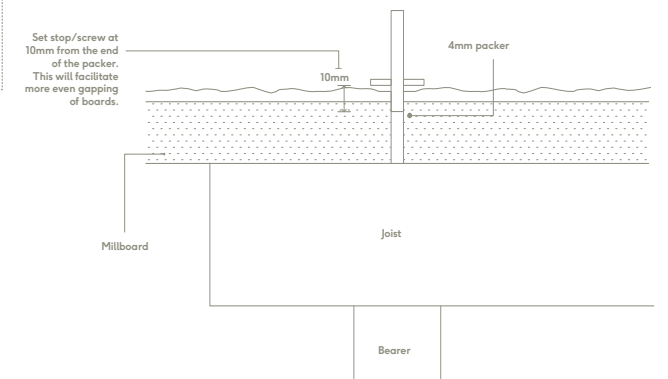
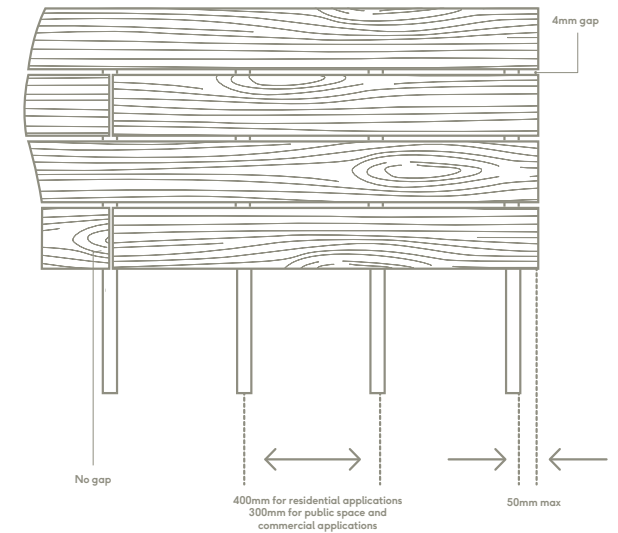
For all applications we recommend that our boards are installed with a 4mm gap between the boards and the end joints butted tight without leaving a gap. The maximum unsupported overhang for the boards is 50mm, each cut board must be supported by a minimum of three joists. Each board must be screwed down with 2 x Durafix fixings where a board crosses a joist, 3 x Durafix fixings are recommended at the ends of the boards.

### Residential applications (1.5kN/m<sup>2</sup> uniform distributed load):

Joists must support boards at 400mm centres if boards are at 90° to joists, if boards are at 45° then joists needs to be set at 300mm centres

### Commercial applications (4kN/m<sup>2</sup> uniform distributed load):

Joists must support boards at 300mm centres if boards are at 90° to joists, if boards are at 45° then joists need to be set at 240mm centres.



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## Technical Data

Physical & Mechanical Properties	Test Standard	Unit	Value/Results
Line Load Bearing Test - Peak Load (180mm width, 300mm span centres)	BS EN ISO 14125	kN	9.32
Line Load Bearing Test - Peak Load (200mm width, 300mm span centres)	BS EN ISO 14125	kN	8.34
Line Load Bearing Test - Peak Load (180mm width, 400mm span centres)	BS EN ISO 14125	kN	6.56
Line Load Bearing Test - Peak Load (200mm width, 400mm span centres)	BS EN ISO 14125	kN	6.64
Line Load Bearing Test - Peak Deflection (180mm width, 300mm span centres)	BS EN ISO 14125	mm	10.75
Line Load Bearing Test - Peak Deflection (200mm width, 300mm span centres)	BS EN ISO 14125	mm	9.39
Line Load Bearing Test - Peak Deflection (180mm width, 400mm span centres)	BS EN ISO 14125	mm	14.39
Line Load Bearing Test - Peak Deflection (200mm width, 400mm span centres)	BS EN ISO 14125	mm	12.36
Line Load Bearing Test - Peak Stress (180mm width, 300mm span centres)	BS EN ISO 14125	Mpa	22.75
Line Load Bearing Test - Peak Stress (180mm width, 400mm span centres)	BS EN ISO 14125	Mpa	18.32
Line Load Bearing Test - Peak Stress (180mm width, 400mm span centres)	BS EN ISO 14125	Mpa	21.36
Line Load Bearing Test - Peak Stress (200mm width, 400mm span centres)	BS EN ISO 14125	Mpa	19.46
Point Load Bearing Test - Peak Load (180mm width, 300mm span centres)	BS EN ISO 14125	kN	7.14
Point Load Bearing Test - Peak Load (200mm width, 300mm span centres)	BS EN ISO 14125	kN	5.78
Point Load Bearing Test - Peak Load (180mm width, 400mm span centres)	BS EN ISO 14125	kN	5.52
Point Load Bearing Test - Peak Load (200mm width, 400mm span centres)	BS EN ISO 14125	kN	5.65
Point Load Bearing Test - Peak Deflection (180mm width, 300mm span centres)	BS EN ISO 14125	mm	5.65
Point Load Bearing Test - Peak Deflection (200mm width, 300mm span centres)	BS EN ISO 14125	mm	11.4
Point Load Bearing Test - Peak Deflection (180mm width, 400mm span centres)	BS EN ISO 14125	mm	19.33
Point Load Bearing Test - Peak Deflection (200mm width, 400mm span centres)	BS EN ISO 14125	mm	15.37
Bending Strength (Textured surface tested)	BS EN 310 :1993	fmN/mm2	13.3
Bending Strength (Textured surface tested) after UV aging	BS EN 310 :1993	fm N/mm2	11.4
Modulus of Elasticity (Textured surface tested)	BS EN 310 :1993	Em N/mm2	896
Modulus of Elasticity (Textured surface tested) after UV aging	BS EN 310 :1993	Em N/mm2	758
Resistance To Static Indentation	MOAT 27:1983	mm	0.1

Dimensional Tolerances		mm	Width: ± 3mm. Length ± 5mm. Thickness ± 2mm
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Physical & Mechanical Properties	Test Standard	Unit	Value/Results
Soft Body Impact	MOAT 43 :1987	mm	0 (no visible damage)
Hard Body Impact	MOAT 43 :1987	mm	0 (no visible damage)
Impact Resistance After Aging	BS EN 13245-1 :2010	-	No cracking or damage to top coat
Fixing Pull Out	BS EN 1382 :1999	Fmax (N)	1610.8
Pull Through Resistance of Fixings	BS EN 1383 :1999	Fmax (N)	1124.9
Density	BBA	kg·m <sup>3</sup>	529.75
Reaction To Fire	EN 13501-1 :2007 + A1 :2009	-	Bfl - s1
Slip Resistance - WET (Weathered Oak)	BS EN 14231	PTV's	54
Slip Resistance - DRY (Weathered Oak)	BS EN 14231	PTV's	66
Slip Resistance - WET (Enhanced Grain)	BS EN 14231	PTV's	51
Slip Resistance - DRY (Enhanced Grain)	BS EN 14231	PTV's	58
Moisture Content	BS EN 322 :1993	(%)	0.6
Ease of Cleaning	BBA	Bleach, Detergent	Completely removed, with no damage or staining
Resistance to Staining	BS EN 438-2 :2005	Acetone	No visible change
Resistance to Staining	BS EN 438-2 :2005	Coffee	Slight change of colour, only visible at certain angles
Resistance to Staining	BS EN 438-2 :2005	Sodium Hydroxide	No visible change
Resistance to Staining	BS EN 438-2 :2005	Hydrogen Peroxide	No visible change
Resistance to Staining	BS EN 438-2 :2005	Shoe Polish	No visible change
Determination of Swelling in Thickness	BS EN 317 :1993	(Gt)	0.1%
Taber Abrasion	ISO 7784-2	mg	261
Tensile Strength Perpendicular to the Plane	BS EN 319 :1993	N/mm <sup>2</sup>	1.53
Tensile Strength Perpendicular to the Plane (After Boiling defined in BS EN 1087-1)	BS EN 319 :1993	N/mm <sup>2</sup>	1.31
Dimensional Stability	BS EN 318:2002	65-85rh (mm/m)	0.47
Dimensional Stability	BS EN 318:2002	65,30 mm/m	-0.30
Colour Measurement	BS 3900 Parts D8-D10 (ISO 7724 Parts 1-3)	D65	Less Red/Yellower
Acoustic Testing	AS 1191.2002, AS/NZS ISO 717.1:2004, AS ISO 354 - 2006	Rw	51

Dimensional Stability		%	0.2% over the length of the board
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