STRUCTURAL INSULATED PANEL DATASHEET

EPS

Physical	EPS 70	EPS 100	EPS 125
Properties			
Thermal Conductivity	0.038	0.036	0.034
(W/mK)			
Compressive Strenath	70	100	125
at 10% (kPa)			
Bending Strength (kPa)	115	150	175
Water Vapour Permeability (mg Pa.h.m)	0.015-0.030	0.009-0.020	0.009-0.020
Water Vapour Diffusion Resistance (µ)	20-40	30-70	30-70
Reaction to Fire Standard EPS	F	F	F
Reaction to Fire FRA EPS	E	E	E
Length Tolerance	L2	L2	L2
Width Tolerance	W2	W2	W2
Thickness Tolerance	T2	T2	Т2
Flatness Tolerance	P5	Р5	P5
Squareness	S2	S2	S2
Dimensional Stability	DS (N) 5	DS (N) 5	DS (N) 5
BRE Green Guide Rating	A+	A+	A+

STRUCTURAL INSULATED PANEL

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OSB3

Characteristic Strength Properties (N/mm2)Bending Strength(N/mm2)Bending Strengthfm, 0, kParallel to spanfm, 0, kPerpendicular to spanfm, 90, kTensile Strength7.4Parallel to spanft, 0, kParallel to spanft, 90, kCompressive Strength7.0Parallel to spanfc, 0, kParallel to spanfc, 90, kParallel to spanfc, 90, kParallel to spanfc, 90, kParallel to spanfc, 90, kPanelfv, k(as a racking panel)fv, k	Property	Designation	Thickness: 11mm		
Bending Strength(N/mm2)Parallel to spanfm, 0, k16.4Perpendicular to spanfm, 90, k7.4Tensile StrengthParallel to spanft, 0, k9.4Perpendicular to spanft, 90, k7.0Compressive StrengthParallel to spanfc, 0, k15.4Perpendicular to spanfc, 90, k12.7Shear StrengthPanelfv, k6.8	Characteristic Strength Properties				
Bending Strengthfm, 0, k16.4Parallel to spanfm, 90, k7.4Tensile StrengthParallel to spanft, 0, k9.4Perpendicular to spanft, 90, k7.0Compressive StrengthParallel to spanfc, 0, k15.4Perpendicular to spanfc, 90, k12.7Shear StrengthPanelfv, k6.8	(N/mm2)				
Parallel to spanfm, 0, k16.4Perpendicular to spanfm, 90, k7.4Tensile StrengthParallel to spanft, 0, k9.4Perpendicular to spanft, 90, k7.0Compressive StrengthParallel to spanfc, 0, k15.4Perpendicular to spanfc, 90, k12.7Shear StrengthPanelfv, k6.8	Bending Strength				
Perpendicular to spanfm, 90, k7.4Tensile StrengthParallel to spanft, 0, kPerpendicular to spanft, 90, kCompressive StrengthParallel to spanfc, 0, kParallel to spanfc, 90, kPerpendicular to spanfc, 90, kPanelfv, k(as a racking panel)	Parallel to span	fm, 0, k	16.4		
Tensile StrengthFersengthParallel to spanft, 0, k9.4Perpendicular to spanft, 90, k7.0Compressive StrengthParallel to spanfc, 0, k15.4Perpendicular to spanfc, 90, k12.7Shear StrengthPanelfv, k6.8	Perpendicular to span	fm, 90, k	7.4		
Parallel to spanft, 0, k9.4Perpendicular to spanft, 90, k7.0Compressive StrengthParallel to spanfc, 0, k15.4Perpendicular to spanfc, 90, k12.7Shear StrengthPanelfv, k6.8(as a racking panel)	Tensile Strength				
Perpendicular to spanft, 90, k7.0Compressive StrengthParallel to spanfc, 0, kPerpendicular to spanfc, 90, kShear StrengthPanelfv, k(as a racking panel)	Parallel to span	ft, 0, k	9.4		
Compressive Strengthfc, 0, k15.4Parallel to spanfc, 0, k12.7Perpendicular to spanfc, 90, k12.7Shear Strength6.8Panelfv, k6.8	Perpendicular to span	ft, 90, k	7.0		
Parallel to spanfc, 0, k15.4Perpendicular to spanfc, 90, k12.7Shear StrengthPanelfv, k6.8(as a racking panel)	Compressive Strength				
Perpendicular to spanfc, 90, k12.7Shear StrengthPanelfv, k(as a racking panel)6.8	Parallel to span	fc, 0, k	15.4		
Shear StrengthFv, kPanelfv, k(as a racking panel)	Perpendicular to span	fc, 90, k	12.7		
Panel fv, k 6.8 (as a racking panel)	Shear Strength				
(as a racking panel)	Panel	fv, k	6.8		
	(as a racking panel)				
Planar fv, r, k 1.0	Planar	fv, r, k	1.0		
(as floor decking)	(as floor decking)				
Stiffness Properties					
(N/mm2)		(N/mm2)	_		
Modulus of elasticity	Modulus of elasticity				
Mean, in bending parallel E0, mean 4930	Mean, in bending parallel	E0, mean	4930		
to span	to span				
Mean, in bending E90, mean 1980	Mean, in bending	E90, mean	1980		
perpendicular to span	perpendicular to span				
Mean, in tension and Ect, 0, mean 3800	Mean, in tension and	Ect, 0, mean	3800		
compression parallel to	compression parallel to				
span	span				
Mean, in tension and Ect, 90, mean 3000	Mean, in tension and	Ect, 90, mean	3000		
compression	compression				
perpendicular to span	perpendicular to span				
Shear modulus	Shear modulus				
Panel (as in a racking Gy, mean 1080	Panel (as in a racking	Gv. mean	1080		
panel)	panel)	,	-		
Planar (as in floor Gr. mean 50	Planar (as in floor	Gr. mean	50		
decking)	decking)	- ,			

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OSB3 Notes:

- 0 = in the direction of the major axis.
- 90 = in the direction of the minor axis.

• These properties relate to an equilibrium moisture content of the test pieces conditioned at a temperature of 20°C and a relative humidity of 65%.

• The 5th percentile characteristic values for stiffness should be taken as 0.85 x the mean values given in the table

<u>Please Note:</u>

The information contained within this datasheet is true and accurate at the date of issuance and is subject to change without prior notice. It is for guidance only the proper use and application of this product is the responsibility of the user.