



Product Specifications

November 2009

Product	TuffPly		
Model	XL	SL	GS
Material Specifications			
Core Material Base	All Plastic		
Core Color	White		
Facing	2 Sided Tuff Plastic		
Surface Finishing	Smooth		
Surface Color	Light grey		
Metal Reinforcement	Yes		
Metal Type	Aluminium	Treated Steel	
Repairable	Yes		
Color Selection	Primary Colors		
Technical Values			
Density, Kg/m ³	850 - 950	720 - 1050	850 - 1220
Bending Modulus, Mpa	4700 - 5500	5300 - 7800	8300 - 21200
Bending Strength, Yield, Mpa	16.5	17	25 - 48
Bending Strength, Ultimate, Mpa	33	46	48 - 60
Operating Temperature, °C	-30 to +90	-20 to +75	
Thermal Expansion, mm/m/10°C	0.9	0.6	
Water Absorbtion, %	0.2	0.6	
Working Conditions			
Sawing	Similar To Wood		
Cutting			
Nailing / Screw			
UV Resistance	Yes		
Impact & Abrasive Resistant	Yes		
Chemical Resistant	Resistant to most acids, alkali. Avoid petroleum		
Flamability	Low	Extremely Low	
Environmentally Friendly	Yes		
Termite Resistant	Yes		
Product Dimensions			
Max. Width, mm	1500		
Max. Length, mm	5000		
Thickness, mm	9 - 30		
Dimension Tolerance, mm	LW +/-1.5 Diagonal +/-3		
Thickness Tolerance, mm	+/-0.4		

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TuffPly Technical Data
November 2009

(For Concrete Shuttering Boards application)

****Notes**

Data are based on manufacturer's testing and will be subjected to changes from time.
Use of board should not exceed its permissible bending strength. Will cause permanent deformation in flatness.

Board Type	TuffPly-XL					
Model	TPxl-9	TPxl-12	TPxl-15	TPxl-18	TPxl-21	TPxl-23
Basic Properties						
Thickness (mm)	9	12	15	18	21	23
Thickness Tolerance (mm)	+/- 0.40					
Density (Kg/m ³)	750.00	710.00	775.00	680.00	665.00	655.00
Weight (Kg/m ²)	6.75	8.52	11.63	12.24	13.97	15.07
Mechanical Properties [ASTMD790]						
Bending Modulus, 3 point (N/mm ²) 25°C	5800	5700	5500	5250	5150	5150
Bending Modulus, 3 point (N/mm ²) 50°C	5500	5400	5200	4950	4850	4850
Permissible Bending Strength (N/mm ²)	17	18	18.5	17.5	16	15
Ultimate Bending Strength (N/mm ²)	44	45	46	45	43	42
Usage Temperature (°C)	-20 +75					

Board Type	TuffPly-SL					
Model	TPsl-9	TPsl-12	TPsl-15	TPsl-18	TPsl-21	TPsl-23
Basic Properties						
Thickness (mm)	9	12	15	18	21	23
Thickness Tolerance (mm)	+/- 0.40					
Density (Kg/m ³)	880.00	790.00	740.00	750.00	715.00	695.00
Weight (Kg/m ²)	7.92	9.48	11.10	13.50	15.02	15.99
Mechanical Properties [ASTMD790]						
Bending Modulus, 3 point (N/mm ²) 25°C	7800	7100	6300	6300	5800	5200
Bending Modulus, 3 point (N/mm ²) 50°C	7300	6700	5950	6000	5500	4900
Permissible Bending Strength (N/mm ²)	20	18	17	18	16	15
Ultimate Bending Strength (N/mm ²)	40	36	36	35	32	30
Usage Temperature (°C)	-20 +75					

Board Type	TuffPly-GS					
Model	TPgs-9	TPgs-12	TPgs-15	TPgs-18	TPgs-21	TPgs-23
Basic Properties						
Thickness (mm)	9	12	15	18	21	23
Thickness Tolerance (mm)	+/- 0.40					
Density (Kg/m ³)	1,150.00	1,100.00	985.00	915.00	850.00	825.00
Weight (Kg/m ²)	10.35	13.20	14.78	16.47	17.85	18.98
Mechanical Properties [ASTMD790]						
Bending Modulus, 3 point (N/mm ²) 25°C	21200	17800	14200	12800	11200	10200
Bending Modulus, 3 point (N/mm ²) 50°C	20700	17400	13850	12500	10900	9900
Permissible Bending Strength (N/mm ²)	62	55	40	33	29	28
Ultimate Bending Strength (N/mm ²)	78	70	55	45	44	43
Usage Temperature (°C)	-20 +75					

Handling Conditions	
Nail Holding	Similar to Wood
Sawing	
Drilling	
UV Resistance	
Recyclable	Yes
	Yes

Note : Other technical values can be custom designed on request.

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