

Manufacturers Certification

ISO9001 Quality Management Certificate
ISO14001 Environmental Management Certificate

Product Testing

No.	Test Items	Standard	Test result	Conclusion	Standard reference
1	Flatwise Compression Strength	$\geq 0.8\text{Mpa}$	2.07Mpa	Pass	JG/T328-2011 7.6.4 GB/T 1453-2005
2	Shear Strength	$\geq 0.5\text{Mpa}$	0.59Mpa	Pass	JG/T328-2011 7.6.5 GB/T 1455-2005
3	Peeling Strength	Average $\geq 50\text{N}$ mm.mm Minimum $\geq 40\text{N}$ mm.mm	Average 51.6Nmm.mm Minimum 46.6Nmm.mm	Pass	JG/T 328-2011 7.6.6 GB/T 1457-2005
4	Flatwise Tensile Strength	Average $\geq 1\text{Mpa}$ Minimum $\geq 0.6\text{Mpa}$	Average 2.21Mpa Minimum 1.96Mpa	Pass	JG/T 328-2011 7.6.7 GB/T 1452-2005
5	Pull Out Strength	$\geq 3.2\text{kN}$	7.5kN	Pass	JG/T 328-2011 7.8
6	Bending Strength (Standard value)	$\geq 8\text{Mpa}$	17.1Mpa	Pass	JG/T 328-2011 7.6.8 GB/T 1456-2005
7	Bending Rigidity	$\geq 1.0 \cdot 10^9 \text{ N} \cdot \text{mm}^2$	$2.32 \cdot 10^9 \text{ N} \cdot \text{mm}^2$	Pass	JG/T 328-2011 7.6.9 GB/T 1456-2005
8	Shearing Rigidity	$\geq 1.0 \cdot 10^5 \text{ N}$	$3.44 \cdot 10^5 \text{ N}$	Pass	
9	Freeze Thaw Test (50 Cycles)	Appearance: No abnormalities	No abnormalities	Pass	JG/T328-2011 7.6.11 GB/T 1456-2005
		Scale of decrease of bending strength $\leq 20\%$	9%	Pass	

10	Coefficient of Thermal Expansion		$1.80 \times 10^{-5} \text{ } ^\circ\text{C}^{-1}$		GB/T 17748 - 1999
11	Heat Transfer		0.258W/(m.k)		GB/T 10294 - 1988
12	Impact Resistance		No change after mass of 1000g dropped from height of 1000mm (~10J)		Hard Body Impact Test
13	Non - Combustibility Test		A2 - s1, d0	Pass	EN 13501-1:2007 + A1 2009
14	Fire Propagation		Propagation Index I = 0		BRE BS 476 - 6: 1989 + A1: 2009
15	Flame Spread		Class 1		BRE BS 476 - 7: 1997
16	Class 0 classification		Class 0		BRE BS 476 - 6 - 7
17	Flexural Strength Under Constant Moment (4 point) Face Up		18MPa		BRE BS EN 13161:2008
18	Flexural Strength Under Constant Moment (4 point) Face Down		12.8MPa		BRE BS EN 13161:2008
19	Flexural Strength Under Concentrated Load (3 point) Face Up		34.2MPa		BRE BS EN 12372:2006
20	Flexural Strength Under Concentrated Load (3 point) Face Down		21.2MPa		BRE BS EN 12372:2006
21	Pull Out Strength of Fixing		4160N		BRE (In House)
Remark:	Freeze Thaw test: Sample kept at temperature of -40°C for 2 hours. Then it is raised to a temperature of 80°C and kept for 2 hours. This is one cycle.				