

FIREX BOARD in Comparison with Other Panel Materials

Feature	Solid Wood board	Plywood board	M D F board	Particle board	Gypsum board	Sansilica (myca) board	Fibre-Cement board	Calcium Silicate board	FIREX BOARD
NON-COMBUSTIBLE	No	No	No	No	No	Yes	Yes	Yes	Yes
MOISTURE-RESISTANT	No	No	No	No	No	Yes	Yes	Yes	Yes
WEATHER-RESISTANT	No	No	No	No	No	No	No	No	Yes
IMPACT-RESISTANT	No	No	No	No	No	No	Yes	No	Yes
SOUND-INSULATING	No	No	No	No	No	No	No	Yes	Yes
HEAT-INSULATING	No	No	No	No	No	No	No	Yes	Yes
DECAY-RESISTANT	No	No	No	No	No	Yes	Yes	Yes	Yes
TERMITE-REPELLENT	No	No	No	No	No	Yes	Yes	Yes	Yes
FUNGI-REPELLENT	No	No	No	No	No	Yes	Yes	Yes	Yes
NON-DEFORMING	No	No	No	No	No	Yes	No	Yes	Yes
SAFE TO USE	Yes	*UF/PF	*UF/PF	*UF/PF	Fragile	*CS Carcinogenic	*CS Carcinogenic	*CS Carcinogenic	Yes
EASY TO USE:									Non-toxic
Sawing	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Drilling	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Stapling	Yes	Yes	Yes	Yes	No	No	No	No	Yes
Glueing	Yes	Yes	Yes	Yes	Yes	No	No	No	Yes
Nail-holding ability	Yes	Yes	Insecure	Insecure	No	No	No	No	Yes
Screw-holding ability	Yes	Yes	Insecure	Insecure	Insecure	Insecure	Insecure	Insecure	Yes
Fabricating	Yes	Yes	No	Yes	Yes	No	No	No	Yes
Foiling	Yes	Yes	Yes	Yes	Yes	No	No	No	Yes
Veneering	Yes	Yes	Yes	Yes	Yes	No	No	No	Yes
Varnishing	Yes	No	Yes	No	No	No	No	No	Yes
Painting	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Wallpapering	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Tiling	No	No	No	No	No	Yes	Yes	Yes	Yes
Bendable (Below 6mm)	No	?	?	No	(Plasterboard same)	No	No	No	Yes
FIRE RESISTANCE LEVEL (6mm Integrity as per BS 476: PART 22)	Non-rated	Non-rated	Non-rated	Non-rated	15 min ≤ (700°C)	60 min (925°C)	30 min ≤ (822°C)	60 min (925°C)	300 min (1200°C)
DENSITY (kg/m ³)	580-880	600-800	550-950	590-850	700-950	1000-1100	1200-1450	900-950	450-750
LIFE SPAN (Indoors)	20-30 yrs	15-20 yrs	10-15 yrs	10 yrs	?	?	?	?	Up to 50 yrs
<small>*CS = Respirable Crystalline Silica (Quartz) UF = Urea Formaldehyde PF = Phenol Formaldehyde MDI = Isocyanate Polyurethane</small>									

FIREX BOARD – Properties and Specifications

Testing Item	Testing Standard	Test Result	
		FIREX BOARD	FIREX BOARD-H
Density	ASTM C1185	690 kg/m ³	1320 kg/m ³
Impact Strength	ASTM D3029 ASTM D5628	4.04 m.kg	Face Up 4.72 J Face Down 4.19J
Flexural Modulus of Elasticity	ASTM C120 ASTM C1185	Long. 7820 MPa Trav. 6347 MPa	1560 MPa
Flexural Modulus of Rupture	ASTM C120 ASTM C1185	Long. 31.42 MPa Trav. 30.84 MPa	19 MPa
Hardness	ASTM D1037	2738 N	Face Up 5970 N Face Down 6730 N
Moisture Content	ASTM C1185	12.4%	7.2%
Water Absorption	ASTM C1185	33%	17.1%
Thermal Conductivity	ASTM C518	0.3096 W/m ² *K	0.089 W/m ² *K
Thermal Resistance (R Value)	ASTM C518	0.0577 m ² *K/W	0.143 m ² *K/W
Fastener Pull Resistance	ASTM D473	937.5 N	1960 N
Dimensional Stability — Creep Modulus	ASTM D2990	433 MPa/cm	0.88 MPa/cm
Dimensional Stability — Load Deflection	ASTM D2990	2.59 *10 ⁻³ of Span	0.86 mm
FRA Title 49 Subtitle B Chapter II Part 238: • Flammability • Smoke Emission • Toxic Gas Generation	ASTM E162 ASTM E662 Boeing BS 7239	N/A N/A N/A	Pass Pass Pass
Non-Combustibility	BS 476 Part 4	Non-Combustible Material	

Thickness * : 2 mm 4 mm 6 mm 9 mm 12 mm 16 mm 19 mm 25 mm - 60 mm
 Size : 4' X 8' (1,220 mm X 2,440 mm)
 Texture : Smooth Surface White / Beige
 Milling : Square Edge Tapered Edge

* The minimum thickness of **FIREX BOARD-H** is 9 mm.

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