



**MDF Flameshield**

Substrates Collection

An MDF panel developed specifically for use in situations where a Class 0 or Class 1 flame retardant board is required. Tested by TÜV SÜD PSB Singapore for BS 476 Part 6 and Part 7, MDF Flameshield achieves the certificate of conformity (COC) for Class 0 and Class 1, respectively.

With proper application, MDF Flameshield is made to withstand up to 30 minutes of fire when used in non load-bearing partitions in accordance with BS 476 Part 22.

Thickness  
Dimensions

4 / 6 / 9 / 12 / 15 / 18 mm  
1220 × 2440 mm

Characteristics



**E1 Low Formaldehyde**  
Safe for all living and interior applications, especially enclosed spaces.



**H1 Dry Conditions**  
Suitable for interior spaces that frequently use air conditioning.



**Class 0/1 Fire Retardant**  
Meets Class 0 and Class 1 requirements under standards set by the Fire Safety & Shelter Department in the Singapore Civil Defence Force (SCDF).

Technical  
Specifications

**General Requirements for Medium Density Fibreboard**

Properties		Test Method	Requirement
Tolerance on Nominal Dimensions	Thickness	EN 324-1	± 0.2 mm
	Length/Width		± 0.3 mm
Squareness Tolerance		EN 324-2	2 mm/m
Tolerance of Density		EN 323	± 10%
Formaldehyde Release		EN 120	Class E1 ≤ 8mg/100g

### Requirements for Medium Density Fibreboard for use in Dry Conditions

Properties	Test Method	Unit	Thickness (mm, nominal dimension)		
			> 9 to 12	> 12 to 19	> 19 to 25
Bending Strength	EN 310	N/mm <sup>2</sup>	22	20	18
Modulus of Elasticity	EN 310	N/mm <sup>2</sup>	2500	2200	1900
Internal Bond	EN 319	N/mm <sup>2</sup>	0.6	0.55	0.55
Swelling in thickness	EN 317	%	15	12	10

### Requirements for Medium Density Fibreboard for use in Humid Conditions

Properties	Test Method	Unit	Thickness (mm, nominal dimension)		
			> 9 to 12	> 12 to 19	> 19 to 25
Average Density	EN 323	Kg/m <sup>3</sup>	> 700	> 700	> 700
Bending Strength	EN 310	N/mm <sup>2</sup>	32	30	28
Modulus of Elasticity	EN 310	N/mm <sup>2</sup>	2800	2700	2600
Internal Bond	EN 319	N/mm <sup>2</sup>	0.8	0.75	0.75
Swelling in thickness	EN 317	%	10	8	7

## MDF Flameshield Application Areas

<b>Furniture and Woodworking</b>	
Lamination of Surface Elements (Melamine, Laminates and Foils)	•
Spray Painting	•
Easy processing with woodworking tools	•
Excellent grip of fasteners (Screws, nails and staples)	•
Decorative Surface	
Attractive Edges	
Homogeneous Appearance Throughout	•

<b>Building and Structural Applications</b>	
High Moisture and Humidity Resistance	H1/H2*
Increased Fire Safety Regulations	Class 0 Class 1
Termite Resistance	High resin content naturally increases termite resistance
Climate Sensitive Applications (Ultra Low VOC)	
Horizontal Load-bearing Applications	•
Non Load-bearing Walls, Partitions and Ceilings	•
Formwork	

<b>Other Technical and Industrial Applications</b>	
Door production with increased fire safety regulations	Class 0 Class 1
Suitable for use in marine vessels	
Temporary Outdoor Exhibitions	•
Packaging Industry	
Signage and Billboards	•
Warehouse Management (Racking)	•

• Recommended \* Option Available