



บริษัท อะโกร ไฟเบอร์ จำกัด  
AGRO FIBER CO.,LTD.

### MDF BOARD TECHNICAL CHARACTERISTICS

<b>Composition</b>	Wood	Fiber from Eucalyptus Wood (Plantation)	80 - 84%
	Adhesive	Urea - formaldehyde Resin (Class E1 , E2)	8 - 12%
	Additive	Wax	0.7 - 1.5%

### TECHNICAL CHARACTERISTICS

Property	Unit	Test Method	Result
RESISTANCE TO ABRASION	Class	EN 14323	Class 1
RESISTANCE TO CRACKING	Rating	EN 14323	≥ 4
RESISTANCE TO WATER STEAM	Rating	EN 14323	≥ 4
RESISTANCE TO BURNING	Rating	EN 14323	≥ 4
RESISTANCE TO STAINING	Rating	EN 14323	≥ 4

### MDF Melamine faced board CHARACTERISTICS

Property	Unit	Test Method	4.0	6.0	8.0 - 9.0	12.0	15.0 - 19.0	25.0
Density	kg/m <sup>3</sup>	EN 323	850 - 900	700 - 800	670 - 790	650 - 790	630 - 770	
Internal Bonding	N/mm <sup>2</sup>	EN 319	≥ 0.8	≥ 0.6	≥ 0.5	≥ 0.4		
Swelling in thickness (After 24 hr soaking)	%	EN 317	≤ 30		≤ 15			
Bending strength	N/mm <sup>2</sup>	EN 310	≥ 30	≥ 27	≥ 22			
Moisture Content	%	EN 322	≤ 8					
Formaldehyde Emission (Class E1)	mg/100 g dry board	EN 120	≤ 8					
Formaldehyde Emission (Class E2)	mg/100 g dry board	EN 120	≤ 40					
Thickness Tolerance	mm	EN 324-1	± 0.4					
Width & Length Tolerance	mm	EN 324-1	± 4					
Standard Size	mm	-	1230 x 2450 , 1220 x 2440					
Appearance Surface	-	EN14323	Spots : ≤ 2 mm <sup>2</sup> / m <sup>2</sup> , Spots : ≤ 5 point / face					



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### HMR BOARD TECHNICAL CHARACTERISTICS

<b>Composition</b>	Wood	Fiber from Eucalyptus Wood (Plantation)	80 - 85%
	Adhesive	Urea - formaldehyde Resin (Class E2)	12 - 15%
	Additives	Wax	1.0 - 1.2%

### TECHNICAL CHARACTERISTICS

Property	Unit	Test Method	Result
RESISTANCE TO ABRASION	Class	EN 14323	Class 1
RESISTANCE TO CRACKING	Rating	EN 14323	≥ 4
RESISTANCE TO WATER STEAM	Rating	EN 14323	≥ 4
RESISTANCE TO BURNING	Rating	EN 14323	≥ 4
RESISTANCE TO STAINING	Rating	EN 14323	≥ 4

### HMR Melamine faced board CHARACTERISTICS






Property	Unit	Test Method	4.0	9.0	12.0	15.0 - 18.0
Density	kg/m <sup>3</sup>	EN 323	850 - 900	750 - 850	700 - 790	700 - 770
Internal Bonding	N/mm <sup>2</sup>	EN 319	≥ 1.2	≥ 1.0	≥ 0.8	
Swelling in thickness (After 24 hr soaking)	%	EN 317	≤ 25	≤ 12	≤ 10	≤ 8
Bending strength	N/mm <sup>2</sup>	EN 310	≥ 40	≥ 32	≥ 30	
Moisture Content	%	EN 322	≤ 8			
Formaldehyde Emission (Class E2)	mg/100 g dry board	EN 120	≤ 40			
Thickness Tolerance	mm	EN 324-1	± 0.4			
Width & Length Tolerance	mm	EN 324-1	± 4			
Standard Size	mm	-	1230 x 2450 , 1220 x 2440			
Appearance Surface	-	EN14323	Spots : ≤ 2 mm <sup>2</sup> / m <sup>2</sup> , Spots : ≤ 5 point / face			



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นิคมอุตสาหกรรม 304 138 ม. 7 ต.ท่าตม อ.ศรีมหาโพธิ จ.ปราจีนบุรี 25140  
 304 Industrial Park 1, 138 Moo 7 Thatoom Srimahaphote,Prachinburi 25140  
 Fax. (66) 2659 1319

**คุณสมบัติผิวหน้าไม้เคลือบเมลามีน**  
**PHYSICAL PROPERTIES OF MELAMINE SURFACE**

PROPERTIES		Specification	Result	Method
 <b>RESISTANCE TO ABRASION</b>	One test piece measuring 100 mm * 100 mm , Taber Abraser applied coated 180 grit on Melamine Board surface until the initial wear point clearly recognisable wear-through of the print.	IP Class 1 < 50 รอบ	CLASS 1	EN 14322 , EN 14323
		IP Class 2 ≥ 50 รอบ		
		IP Class 3A ≥ 150 รอบ		
		IP Class 3B ≥ 250 รอบ		
		IP Class 4 ≥ 350 รอบ		
 <b>RESISTANCE TO CRACKING</b>	One test piece measuring 250 mm * 250 mm , Melamine Board is placed in oven at 70°C for 24 hours.	Rating 5 Without cracks	≥ 4	EN 14322 , EN 14323
		Rating 4 Isolated hairline cracks		
		Rating 3 Hairline cracks randomly distributed over the total surfaces		
		Rating 2 In addition to stage 3 ,1 to 2 small cracks < 25 mm have appeared on the surface with are still visible at an observation distance of 400 mm		
		Rating 1 More cracks spread over the total surface area .		
 <b>RESISTANCE TO WATER STEAM</b>	One test piece measuring 100 mm * 100 mm , Melamine Board surface exposed for 1 hour to steam	Rating 5 No visible change	≥ 4	EN 14322 , EN 14323
		Rating 4 Slight change of gloss and/or colour , only visible at certain viewing angles.		
		Rating 3 Moderate change of gloss and/or colour.		
		Rating 2 Marked change of gloss and/or colour.		
		Rating 1 Surface distortion and/or blistering.		
 <b>RESISTANCE TO BURNING</b>	Three test pieces ( 100 mm * 100 mm ), Lighted cigarette placed on Melamine Board surface. Slight brownish colour which can be wiped off with ethanol	Rating 5 No visible change	≥ 4	EN 14322 , EN 14323
		Rating 4 Slight change of gloss and/or colour , only visible at certain viewing angles.		
		Rating 3 Moderate change of gloss and/or colour.		
		Rating 2 Marked change of gloss and/or colour.		
		Rating 1 Surface distortion and/or blistering.		
 <b>RESISTANCE TO STAINING</b>	Individual test pieces of any suitable size shall be used , Melamine Board surface exposed to various staining materials for 16 hours  (Staining materials : Tea , Coffee , Soy Sauce etc.)	Rating 5 No visible change	≥ 4	EN 14322 , EN 14323
		Rating 4 Slight change of gloss and/or colour , only visible at certain viewing angles.		
		Rating 3 Moderate change of gloss and/or colour.		
		Rating 2 Marked change of gloss and/or colour.		
		Rating 1 Surface distortion and/or blistering.		