

# TREMENDOUS PARTICLEBOARD



**Timber Products Company**  
THE TREMENDOUS RESOURCE



INDUSTRIAL  
COMMERCIAL  
UNDERLAYMENT  
DOOR CORE  
PINE  
GREEN T™

## TREMENDOUS VERSATILITY

The Timber Products Company Particleboard Division is one of our most versatile divisions, manufacturing both fir and pine particleboard substrates in all grades: underlayment, door core, commercial, industrial, and specialty. It's just one more way we at Timber Products Company are dedicated to providing our customers with precise, timely solutions.

### TIMBER PRODUCTS COMPANY PARTICLEBOARD

Specially engineered and formulated to provide excellent machinability and screw-holding power, our particleboard panels are the ideal choice for a wide range of applications. Additionally, all particleboard panels are available in GreenT™ versions, manufactured with no added formaldehyde. After all, it's what's on the inside that counts.

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# TREMENDOUS PARTICLEBOARD

## TIMBER PRODUCTS COMPANY GREENT™ PARTICLEBOARD



Our innovative GreenT™ line of particleboard features no added formaldehyde, efficiently combining performance and environmental friendliness. In fact, GreenT™ particleboard carries the Sustainable Forestry Initiative® label and Composite Panel Association Eco-Certified Composites certification. This certification requires 100% of fiber waste to be either recycled or recovered fiber, or a combination of both, and meets the same strict emission levels as required by California Air Resources Board Phase Two.

### LD-2 DOOR CORE PHYSICAL PROPERTIES

	Door Core
Thickness Range	28mm – 43mm (1.100" – 1.625")
Density (lbs./cubic ft.)	514 kg/m <sup>3</sup> (32 pcf)
Width & Length (Max. inch)	±2.0mm (±.080")
Thickness Tolerance (Panel Avg. from Nominal) (Variance from Average)	+0.125 – .375mm (+.005" – .015") ±0.125mm (±.005")
Squareness	3.0mm/m width (0.036"/ft.)
Straightness	1.0mm/1.5m (0.016"/2ft.)
Moisture Content (%)	10% Max.
MOR (Min. Average psi)	2.8N/mm <sup>2</sup> (406 psi)
MOE (Min. Average psi)	500N/mm <sup>2</sup> (72,500 psi)
Internal Bond (Min. Average psi)	0.14N/mm <sup>2</sup> (20 psi)
Linear Expansion (Max. Avg. % – Humidity Cabinet Method)	0.40% Max.
Screw holding (Face)	520N (117 lbs.)
Grade (ANSI 208.1 – 2009)	LD-2
Formaldehyde Release (ASTM E 1333-90)	<0.09 ppm

### LD-1 DOOR CORE PHYSICAL PROPERTIES

	Door Core
Thickness Range	28mm – 43mm (1.100" – 1.700")
Density (lbs./cubic ft.)	480 kg/m <sup>3</sup> (30 pcf)
Width & Length (Max. inch)	±2.0mm (±.080")
Thickness Tolerance (Panel Avg. from Nominal) (Variance from Average)	+0.125 – .375mm (+.005" – .015") ±0.125mm (±.005")
Squareness	3.0mm/m width (0.036"/ft.)
Straightness	1.0mm/1.5m (0.016"/2ft.)
Moisture Content (%)	10% Max.
MOR (Min. Average psi)	2.8N/mm <sup>2</sup> (406 psi)
MOE (Min. Average psi)	500N/mm <sup>2</sup> (72,500 psi)
Internal Bond (Min. Average psi)	0.10N/mm <sup>2</sup> (15 psi)
Linear Expansion (Max. Avg. % – Humidity Cabinet Method)	0.40% Max.
Screw holding (Face)	360N (81 psi)
Grade (ANSI 208.1 – 2009)	LD-1
Formaldehyde Release (ASTM E 1333-90)	<0.09 ppm

### M-3i INDUSTRIAL PHYSICAL PROPERTIES

	Standard Industrial	Thick Industrial
Thickness Range	9.5mm – 19mm (3/8"–3/4")	23mm – 30mm (1"– 1 3/16")
Density (lbs./cubic ft.)	737 kg/m <sup>3</sup> (46 pcf)	721 kg/m <sup>3</sup> (45 pcf)
Width & Length (Max. inch)	±2.0mm (±.080")	±2.0mm (±.080")
Thickness Tolerance		
(Panel Avg. from Nominal)	±0.200mm (±.008")	±0.200mm (±.008")
(Variance from Average)	±0.100mm (±.004")	±0.100mm (±.004")
Squareness	3.0mm/m width (0.036"/ft.)	3.0mm/m width (0.036"/ft.)
Straightness	1.0mm/1.5m (0.016"/2ft.)	1.0mm/1.5m (0.016"/2ft.)
Moisture Content (%)	10% Max.	10% Max.
MOR (Min. Average psi)	15.0N/mm <sup>2</sup> (2176 psi)	15.0N/mm <sup>2</sup> (2176 psi)
MOE (Min. Average psi)	2500N/mm <sup>2</sup> (362,600 psi)	2500N/mm <sup>2</sup> (362,600 psi)
Internal Bond (Min. Average psi)	0.50N/mm <sup>2</sup> (73 psi)	0.50N/mm <sup>2</sup> (73 psi)
Linear Expansion		
(Max. Avg. % –Humidity Cabinet Method)	0.40% Max.	0.40% Max.
Screw holding		
(Face)	1000N (225 lbs.)	1000N (225 lbs.)
(Edge)	900N (202 lbs.)	900N (202 lbs.)
Finish Sand (Grit Size)	100	100
Grade (ANSI 208.1 – 2009)	M-3i	M-3i
Formaldehyde Release (ASTM E 1333-90)	<0.09 ppm	<0.09 ppm

### M-2 INDUSTRIAL PHYSICAL PROPERTIES

	Industrial
Thickness Range	9.5mm – 32mm (3/8"–1 1/4")
Density (lbs./cubic ft.)	689 kg/m <sup>3</sup> (43 pcf)
Width & Length (Max. inch)	±2.0mm (±.080")
Thickness Tolerance	
(Panel Avg. from Nominal)	±0.200mm (±.008")
(Variance from Average)	±0.100mm (±.004")
Squareness	3.0mm/m width (0.036"/ft.)
Straightness	1.0mm/1.5m (0.016"/2ft.)
Moisture Content (%)	10% Max.
MOR (Min. Average psi)	13.0N/mm <sup>2</sup> (1885 psi)
MOE (Min. Average psi)	2000N/mm <sup>2</sup> (290,100 psi)
Internal Bond (Min. Average psi)	0.40N/mm <sup>2</sup> (58psi)
Linear Expansion	
(Max. Avg. % –Humidity Cabinet Method)	0.40% Max.
Screw holding	
(Face)	900N (202 lbs.)
(Edge)	800N (180 lbs.)
Finish Sand (Grit Size)	100
Grade (ANSI 208.1 – 2009)	M-2
Formaldehyde Release (ASTM E 1333-90)	<0.09 ppm

### M-1 COMMERCIAL PHYSICAL PROPERTIES

	Commercial
Thickness Range	9.5mm – 33mm (3/8"– 1 5/16")
Density (lbs./cubic ft.)	673 kg/m <sup>3</sup> (42 pcf)
Width & Length (Max. inch)	±2.0mm (±.080")
Thickness Tolerance	
(Panel Avg. from Nominal)	±0.200mm (±.008")
(Variance from Average)	±0.100mm (±.004")
Squareness	3.0mm/m width (0.036"/ft.)
Straightness	1.0mm/1.5m (0.016"/2ft.)
Moisture Content (%)	10% Max.
MOR (Min. Average psi)	10.0N/mm <sup>2</sup> (1450 psi)
MOE (Min. Average psi)	1550N/mm <sup>2</sup> (224,800 psi)
Internal Bond (Min. Average psi)	0.36N/mm <sup>2</sup> (52 psi)
Linear Expansion	
(Max. Avg. % –Humidity Cabinet Method)	0.40% Max.
Finish Sand (Grit Size)	100
Grade (ANSI 208.1 – 2009)	M-1
Formaldehyde Release (ASTM E 1333-90)	<0.09 ppm

### UNDERLAYMENT PHYSICAL PROPERTIES

	Underlayment
Thickness Range	9.5mm – 25mm (3/8"–1")
Density (lbs./cubic ft.)	673 kg/m <sup>3</sup> (42 pcf)
Width & Length (Max. inch)	+0 –4.0mm (+0 –.160")
Thickness Tolerance	
(Panel Avg. from Nominal)	±0.375mm (±.015")
(Variance from Average)	±0.250mm (±.010")
Squareness	3.0mm/m width (0.036"/ft.)
Straightness	1.0mm/1.5m (0.016"/2ft.)
Moisture Content (%)	6 – 9%
Hardness (Min. lbs.)	2225N (500 lbs.)
MOR (Min. Average psi)	11.0N/mm <sup>2</sup> (1595 psi)
MOE (Min. Average psi)	1725N/mm <sup>2</sup> (250,200 psi)
Internal Bond (Min. Average psi)	0.40/mm <sup>2</sup> (58psi)
Linear Expansion	
(Max. Avg. % –Humidity Cabinet Method)	0.35% Max.
Thickness Swell	1.6mm (0.063") Max.
Finish Sand (Grit Size)	80
Grade (ANSI 208.1 – 2009)	PBU
Formaldehyde Release (ASTM E 1333-90)	<0.09 ppm