



# TIMBER PRODUCTS PARTICLEBOARD

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

Our innovative line of particleboard features no added formaldehyde, efficiently combining performance and environmental friendliness. In fact, our particleboard carries the 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.

After all, it's what's on the inside that counts.



### **LD-2 DOOR CORE PHYSICAL PROPERTIES**

|   | Door Core                      |
|---|--------------------------------|
| Thickness Range                         | 28mm – 43mm (1.100" – 1.625")  |
| Density (lbs./cubic ft.)                | 514 kg/m3 (32 pcf)             |
| Width & Length (Max. inch)              | ±2.0mm (±.080")                |
| Thickness Tolerance                     |                                |
| (Panel Average from Nominal)            | +0.125375mm (+.005"015")       |
| (Variance from Average)                 | $\pm 0.125$ mm ( $\pm .005$ ") |
| Squareness                              | 3.0mm/m width (0.036"/ft.)     |
| Straightness                            | 1.0mm/1.5m (0.016"/2ft.)       |
| Moisture Content (%)                    | 10% Max.                       |
| MOR (Minimum Average psi)               | 2.8N/mm2 (406 psi)             |
| MOE (Minimum Average psi)               | 500N/mm2 (72,500 psi)          |
| Internal Bond (Minimum Average psi)     | 0.14N/mm2 (20 psi)             |
| Linear Expansion                        |                                |
| (Max. Avg. % – Humidity Cabinet Method) | 0.40% Max.                     |
| Screw holding                           |                                |
| (Face)                                  | 520N (117 lbs.)                |
| <b>Grade</b> (ANSI 208.1 – 2016)        | LD-2                           |
| Formaldehyde Release (ASTM E 1333-90)   | <0.06 ppm                      |

### **LD-1 DOOR CORE PHYSICAL PROPERTIES**

|  | Door Core                         |
|--|-----------------------------------|
| Thickness Range                            | 28mm – 43mm (1.100" – 1.700")     |
| Density (lbs./cubic ft.)                   | 480 kg/m³ (30 pcf)                |
| Width & Length (Max. inch)                 | ±2.0mm (±.080")                   |
| Thickness Tolerance                        |                                   |
| (Panel Average from Nominal)               | +0.125375mm (+.005"015")          |
| (Variance from Average)                    | ±0.125mm (±.005")                 |
| Squareness                                 | 3.0mm/m width (0.036"/ft.)        |
| Straightness                               | 1.0mm/1.5m (0.016"/2ft.)          |
| Moisture Content (%)                       | 10% Max.                          |
| MOR (Minimum Average psi)                  | 2.8N/mm <sup>2</sup> (406 psi)    |
| MOE (Minimum Average psi)                  | 500N/mm <sup>2</sup> (72,500 psi) |
| Internal Bond (Minimum 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)                     |
| <b>Grade</b> (ANSI 208.1 – 2016)           | LD-1                              |
| Formaldehyde Release (ASTM E 1333-90)      | <0.06 ppm                         |



### M-3I INDUSTRIAL PHYSICAL PROPERTIES

| IVI-31 INDUSTRIAL PHYSICAL PROPERTIES |                                     |                                 |  |
|---------------------------------------|-------------------------------------|---------------------------------|--|
|                                       | Standard Industrial                 | Thick Industrial                |  |
| Thickness Range                       | 9.5mm – 19mm (3/8"–3/4")            | 23mm - 30mm (1"-13/16")         |  |
| Density (lbs./cubic ft.)              | 737 kg/m³ (46 pcf)                  | 721 kg/m³ (45 pcf)              |  |
| Width & Length (Max. inch)            | ±2.0mm (±.080")                     | ±2.0mm (±.080")                 |  |
| Thickness Tolerance                   |                                     |                                 |  |
| (Panel Average 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 (Minimum Average psi)             | 15.0N/mm <sup>2</sup> (2176 psi)    | 15.0N/mm <sup>2</sup> (2176psi) |  |
| MOE (Minimum Average psi)             | 2500N/mm <sup>2</sup> (362,600 psi) | 2500N/mm² (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. Average % – Humidity            | 0.40% Max.                          | 0.40% Max.                      |  |
| Cabinet Method)                       |                                     |                                 |  |
| Screw holding                         |                                     |                                 |  |
| (Face)                                | 1000N (225 lbs.)                    | 1000N (225 lbs.)                |  |
| (Edge)                                | 900N (202 lbs.)                     | 900N (202 lbs.)                 |  |
| Finish Sand (Grit Size)               | 100                                 | 100                             |  |
| <b>Grade</b> (ANSI 208.1 – 2016)      | M-3i                                | M-3i                            |  |
| Formaldehyde Release                  |                                     |                                 |  |
| (ASTM E 1333-90)                      | <0.06 ppm                           | <0.06 ppm                       |  |



# M-2 INDUSTRIAL PHYSICAL PROPERTIES

|  | Industrial                       |
|--|----------------------------------|
| Thickness Range                            | 9.5mm – 32mm (3/8" – 11/4")      |
| Density (lbs./cubic ft.)                   | 689 kg/m³ (43 pcf)               |
| Width & Length (Max. inch)                 | ±2.0mm (±.080")                  |
| Thickness Tolerance                        |                                  |
| (Panel Average 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 (Minimum Average psi)                  | 13.0N/mm <sup>2</sup> (1885 psi) |
| MOE (Minimum Average psi)                  | 2000N/mm² (290,100 psi)          |
| Internal Bond (Minimum 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                              |
| <b>Grade</b> (ANSI 208.1 – 2016)           | M-2                              |
| Formaldehyde Release (ASTM E 1333-90)      | <0.06 ppm                        |

# M-1 COMMERCIAL PHYSICAL PROPERTIES

|   | Commercial                          |
|---|-------------------------------------|
| Thickness Range                         | 9.5mm – 33mm (3/8" – 15/16")        |
| Density (lbs./cubic ft.)                | 673 kg/m³ (42 pcf)                  |
| Width & Length (Max. inch)              | ±2.0mm (±.080")                     |
| Thickness Tolerance                     |                                     |
| (Panel Average 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 (Minimum Average psi)               | 10.0N/mm² (1450 psi)                |
| MOE (Minimum Average psi)               | 1550N/mm <sup>2</sup> (224,800 psi) |
| Internal Bond (Minimum 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                                 |
| <b>Grade</b> (ANSI 208.1 – 2016)        | M-1                                 |
| Formaldehyde Release (ASTM E 1333-90)   | <0.06 ppm                           |

# **PARTICLEBOARD**

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**Timber Products** is one of the nation's largest and most respected manufacturers of a comprehensive range of wood products.

As an independently owned, fully integrated company with dedicated manufacturing facilities in both the western and eastern United States, we provide immediate access to a tremendous selection of products and services. We've implemented new technologies to make our operations more efficient and our products more cost-effective. We can respond to your needs faster, with greater flexibility and with an absolute assurance of quality.

