



BENEFITS OF ENSTRON INCLUDES:

- Near Zero-formaldehyde emission particleboard from PLUMMER Forest Products.
- Contributes to Leadership in Energy and Environmental Design (LEED) credits (see chart below).
- Manufactured specifically for use as a flooring underlayment, countertops, cabinets, millwork, furniture and fixtures.
- No Formaldehyde added
- Moisture resistant
- Proven performance
- FSC Available
- Made from white wood species mix (Pine, Douglas Fir, Larch and Hemlock for better machinability and easier color-matching in finishing applications
- Precision face sanding means a smoother surface for better adhesion to laminates
- Readily available from one of North America's leading manufacturers.
- Improved dimensional stability
- CARB Exempt - Meets Phase I and Phase II

PHYSICAL AND MECHANICAL PROPERTIES

PLUMMER Forest Products Particleboard meets or exceeds ANSI A208.1-1999 standard for the following:

Units	Underlayment Grade (PBU) Imperial (Metric)	Industrial Grade (M2) Imperial (Metric)	Industrial grade (M-3) Imperial (Metric)
Density	43.0#/cu.ft. (689kg/m3) 1595 p.s.i. (11N/mm2)	44-46#/cu.ft (705-737kg/m3) 2103 p.s.i. (14.5N/mm2)	45-47#cu.ft. (721-753kg/m3) 2393 p.s.i. (16.5N/mm2)
Modulus of Elasticity	250200 p.s.i. (1725 N/mm2)	326300 p.s.i. (2250 N/mm2)	398900 p.s.i. (2750 N/mm2)
Internal Bond	58 p.s.i. (0.40 N/mm2)	65 p.s.i. (0.45N/mm2)	80 p.s.i.(0.55N/mm2)
Linear Expansion	0.35% Max Avg.	0.35% Max Avg.	0.35% Max Avg.
Hardness Janka Ball	500 pounds (2225 N)	500 pounds (2225 N)	500 pounds (2225 N)
Panel Average from Specified	±0.015 inch (±0.375mm)	±0.008 inch. (±0.200mm)	±0.008 inch (±0.200mm)
Variance from Panel Average	±0.010 inch (±0.250mm)	±0.004 inch (±0.100mm)	±0.004 inch (±0.100mm)
Length Tolerances	+0 (+0)	+0.080 inch (+2.0mm)	+0.080 inch (+2.0mm)
Width Tolerances	-0.160 (-4.00mm)	-0.080 inch (-2.0mm)	-0.080 inch (-2.0 mm)
Face	No Standard	225 pounds (1000 N)	
Edge	No Standard	202 pounds (900 N)	225 pounds (1000 N)

ENSTRON PLUS CREDIT AND LEED POINT INFORMATION

LEED Category	Requirement	Possible Credits/Points	Enstron Qualification
Indoor Environmental Quality IEQ 4.4	Composite wood products must contain no added formaldehyde resins	1 point	Enstron has no added formaldehyde resins
Materials and Resources MR 4.1	Sum of re-cycled content constitutes at least 10% of material in the project	1 point	Enstron is 100% pre-consumer
Materials and Resources MR 4.2	Sum of re-cycled content constitutes at least 20% of material in the project	1 point in addition to MR 4.1	Enstron is 100% pre-consumer
Materials and Resources MR 5.1	Use a minimum of 20% of combined value of construction materials and products manufactured within a 500 mile radius	1 point	Enstron is manufactured in Post Falls, ID. and may contribute based on project location.
Materials and Resources MR 5.2	In addition to requirements of MR 5.1, use a minimum of 10% of the combined value of construction materials and products extracted, harvested, or recovered as well as manufactured within 500 miles of the project	1 point	Enstron is manufactured in Post Falls, ID. and may contribute based on project location.