

Reynobond® ZCM Engineering Properties U.S. and Metric Equivalent

Typical Engineering Properties

4 mm, RB160FR ZCM⁽¹⁾, Reynobond using a fire-resistant polymeric compound core faced with two sheets of zinc

Property	U.S. Measurement	Metric Measurement
Thickness	0.157 in	4 mm
Weight ⁽²⁾	2.99 lb/ft ²	14.591 kg/m ²
Allowable Bending Stress	7,250 lb/in ²	49.987 MPa
Coefficient of Expansion ⁽³⁾ ASTM E228	12.2 x 10 ⁻⁶ in/in/°F (Longitudinal) 9.4 x 10 ⁻⁶ in/in/°F (Transverse)	2.2 mm/mm/°C 1.7 mm/mm/°C
Stiffness (EI)	2,112 lb in ² /in (Longitudinal) 2,545 lb in ² /in (Transverse)	23.8 x 10 ³ MPa cm ⁴ /m 28.7 x 10 ³ MPa cm ⁴ /m
Flexural Modulus Aged & Tested per ASTM C393 Reported Values per ASTM D6272	9.25 x 10 ⁶ lb/in (Longitudinal) 11.01 x 10 ⁶ lb/in ² (Transverse)	6.38 x 10 ⁴ MPa 7.59 x 10 ⁴ MPa
Moment of Inertia	2.37 x 10 ⁻⁴ in ⁴ /in	0.3916 cm ⁴ /m
Section Modulus	3.02 x 10 ⁻³ in ³ /in	1.96 cm ³ /m
Tensile Yield of Laminate ASTM D638	7,730 lb/in ² (Longitudinal) 10,280 lb/in ² (Transverse)	53.5 MPa 70.88 MPa
Flatwise Tensile ASTM C297	615 lb/in ²	4.24 MPa
Minimum Bond Strength ASTM D1781	20 in-lb/in	89.7 Nm/m
Flatwise Shear ASTM D1002	310 lb/in ²	2.14 MPa
"R" Thermal Resistance ⁽⁴⁾ (Core Only)	0.022 ft ² hr°F BTU	3.9 x 10 ⁻³ m ² K/W
Maximum Width	39.37 in	1 m
Maximum Length	243 in	6,172 mm (6.17 m)

¹ All properties based on 0.028" zinc as the skin material.

² Weights calculated and based on 499 lb/ft³ for zinc and 106.1 lb/ft³ for the "FR" core.

³ Based on the thermal expansion properties for zinc.

⁴ Estimated values, not based on actual tests for this product.

Data based on zinc with a tensile yield of 14,500 psi.

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