

	ETERNIT CH Standards Values	Independent Test Data (Third party institute Germany)		ASTM Test Values Architectural Testing	
		Test. Nr.	Values	Test. Nr.	Values / Performance criteria ASTM C1186
Product data					
Density	1.7-1.9 g/cm ³ at 20°C (1.0-1.1 oz/cu in)	EN 12467 7.3.1	1.9 g/cm ³		
Weight for thickness 7-8 mm	Approx. 15 kg/m ² 3.1 lbs. ft ²				
Thickness	8 mm (7.9 ± 0.5 mm)			C 120-90	0.310 inches
Tolerances of Dimensions <i>Thickness</i> <i>Length and Width</i> <i>Squareness</i> <i>Edge Straightness</i>	± 0.5 mm (0.02") ± 0.7 mm (0.027") ± 0.5 mm (0.02") ± 1.0 mm/m (0.04")	EN 12467 7.2.3	± 0.1 mm ± 0.6 mm ± 0.0 mm ≤ 2.0 mm/m		
Physical Properties					
Modulus of rupture Crosswise dry Lengthwise dry	27 MPa 19 MPa	EN 12467 EN 12467	31 MPa 21 MPa	C 120-90 C 1185-95	4,148 psi 28.6 MPa 2,638 psi 18.2 MPa
Average value (Equilibrium) (crosswise/lengthwise)	23 MPa	EN 12467	26 MPa	C 120-90	3,436 psi (Grade IV) 23.7 Mpa (Grade IV)
Modulus of Elasticity dry (Mean crosswise/lengthwise)	Approx. 15'000 MPa	EN 12467	16'000 MPa	C 120-90	2,676,000 psi 18'450 MPa
Bending Strength characteristic value (5 % Fractile)	23 MPa	EN 12467	25 MPa		
Bending stress as design value (admissible max. working stress)	8 MPa	Z-31.1-34 31.07.2001	6 MPa		
Surface Burning Characte- ristics (Flame spread/Smoke)	0/0	-	-	E 84-99	0/15 (0/< 5) Did not Ignite
Fire Classification	A2-s1,d0 non- inflammable	EN 13501-1	A2-s1,d0 non- inflammable	E 84-99	UBC Class I NFPA Class A
Coefficient of Thermal Expansion (Average) (-30 °C to +30 °C)	10 · 10 ⁻⁶ K ⁻¹	-	10 · 10 ⁻⁶ K ⁻¹	E 228-95	6.97 · 10 ⁻⁶ in/in °F 1.25 · 10 ⁻⁵ mm/mm °C
Coefficient of Thermal Conductivity (K)	0.56 W/m °K	EMPA	0.56 W/m °K	C 518-98	7.5 Btu/h °F ft ²
Moisture Content (Mass-%) (Average)	< 6.0 M. -%	-	5.0 M. -%	C 1185-95	5.12 M.-%
Water Absorption (Mass-%)	14 M.-%	-	12 M.-%	C 1185-95	9.15 M.-%
Moisture Movement 50 % to 90 % RH	1 ‰	-	-	C 1185-95	0.08 %
Water Tightness	24 hours	EN 12467	24 hours	C 1185-95	No visible droplets or surface wetting
Frost Resistance (Flex. Strength) Swelling	1000 cycles < 3% after 200 cycles	EMPA	> 1000 cycles	C 1185-95	2,944 psi 20.3 MPa
Warm Water Resistance (Average)	21 MPa (1.0 x 21 MPa)	EN 12467	21 MPa	C 1185-95	2,860 psi 19.7 MPa

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Heat/Rain Exposure	50 cycles	EN 12467	50 cycles	C 1185-95	No damage or structural alterations visible
Resistance to acid rain	resistant	-	-	D 1308-87	No visible change
Resistance to UV (Xenon Arc Light acc. Weathering)	resistant	-	-	G 155-00	1000 h: $\Delta E = 1.753$ 1500 h: $\Delta E = 2.166$ 2000 h: $\Delta E = 2.478$