

Product Performance Test Results

Test	standard	Criteria	Results
FIRE PERFORMANCE:			
Fire Spread and Burning		Maximum temp rise of 36C° above 750C°	0
Smoke Development	ASTM E84	No flaming	0
Smoke Generation	ASTM D136	Weight loss not to exceed 20%	0
Combustibility	CAN/ULC-S114-M80		Material classified as Non Combustible
Fire Resistance Rating	AS 1530.4 1997	Resistance to heat; refer BRANZ Fire Resistance Test FR 3524	FRR 240/240/240
PHYSICAL PROPERTIES:			
Sorptivity - Initial Rate of Water Absorption	ASTM C1585.04	mm/sec ^{0.5}	Litecrete = 0.0107 @ 12Mpa; normal concrete = 0.0215 @ 30MPa
Vapour Flow Resistance		N/A	30 -100 (GN.s/kg.m)
Thermal Conductivity (k) Value Thermal resistance (R) Value	AS/NZS 4859.1 NZNZS 4218:2009	0.32 +/- 0.003 Wm ⁻¹ K ⁻¹ 0.16 +/- 0.06 m ² KW ⁻¹ (for 50 mm)	Tests conducted at Curtin University, Perth: ASTM C-177, ASTM C-653, ASTM C-167. Meets Code requirements (solid construction) for Climate Zone 1: 220 mm thick = R0.8
Environ. Compatibility	EPA M 1311	No pollution	No detrimental effects.
Mould and Mildew	MIL STD 810E	Susceptibility	Does not support fungal growth. Rated: 0
Modulus of Elasticity	ASTM-C469-02	N/A	4580 MPa (28 days)
Modulus of Rupture	NZS 3112 P2	N/A	1.45 MPa (28 days)
Coefficient of Thermal Exp.	ASTM C531	N/A	5.51 (AVE) x 10 ⁻⁶ / F°
Shrinkage	NZS 3151:1974	N/A	< 1000 µε (microstrains)
Compressive Strength	NZS 3151:1974	N/A	> 10 MPa (28 days)
Density	NZS 3112 P3	N/A	1700 kg/m ³ at delivery min 14 days 1550 kg/m ³ (28 days) reinforced 1450 kg/m ³ (28 days) un-reinforced
Tensile Strength	NZS 3112 P2	N/A	1.3 MPa (28 days)
Bracing Units		Uni of Auckland	3000x1200x220 mm panel = 640 BU's
ACOUSTIC PERFORM Specification	STC Class		Fire Resistance Test Criteria
150 wall panels strapped/ lined 260 mm thick panel	STC 60 STC 55		240/240/240 240/240/240 ISO 140 Part 3 ISO 140 Part 3