

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: Structural Adequacy - 250 minutes Integrity - 250 minutes without failure Insulation - 250 minutes without failure
PHYSICAL PROPERTIES:			
Sorptivity/Initial Rate of Water Absorption	ASTM C1585.04	mm/sec ^{0.5}	Litecrete = 0.0107 @ 12Mpa; normal concrete = 0.0215 @ 20MPa
Vapour Flow Resistance	ASTM E96	N/A	2.5MNs/g
Thermal Conductivity (k) Value	AS/NZS 4859.1	0.32 +/- 0.003 Wm ⁻¹ K ⁻¹	Tests conducted at Curtin University of Technology, Perth. Incorporating ASTM C-177, ASTM C-653, ASTM C-167. Meets Code requirement for a Solid Wall; eg Climate Zone 1, 220 mm thick = R0.8
Thermal resistance (R) Value	NZS 4218: 2009	0.12 +/- 0.6 m ² KW ⁻¹ (for 40 mm)	
Environmental 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 Expansion	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	1500 kg/m ³ at delivery min 14 days 1350 kg/m ³ (28 days) reinforced 1250 kg/m ³ (28 days) un-reinforced
Tensile Strength	NZS 3112 P2	N/A	1.3 MPa (28 days)
Bracing Units		Opus	2400x1200x150 mm panel = 400 BU's
ACOUSTIC PERFORMANCE: Specification	STC Class	Fire Resistance	Test Criteria
150 mm wall panels strapped one face with metal furring strips, insulation and 13mm plasterboard.	STC 55	250/250/250	ISO 140 Part 3
260 mm thick panel	STC 60	250/250/250	ISO 140 Part 3