Physical and mechanical properties

General Technical Properties		
Product generic description		Cement Bound Matrix board
Non Combustible		EN ISO 1182: 2002 BS 476: Part 4
Building regulations classification		Class 0 (BS 476: Parts 6 & 7)
Heat and smoke release rates (tested to AS/NZS 3837)		Group 1
Spread of flame for bare floors (tested to AS ISO 9239: Part 1)		Passed
Thermal conductivity (approximate) at 20°C	W/m°K	0.166
Simultaneous determination of ignitability, flame propagation, heat and smoke release (tested to AS 1530: Part 3)		Determination of ignitability: 0 Determination of flame propagation: 0 Determination of heat release: 0 Determination of smoke developed: 0-1
Water permeability (tested to AS 2908: Part 2: 2000)		Passed
Water proof (tested to AS 3740: 2004 using wet area membrane)		Impermeable to water
Water Tightness to BS 4624: 1981		Passed

Alkalinity (approximate)	pH	9 – 10
Typical moisture content (ambient to dry condition, tested to BS 5669: Part 1, Clause 9)		1.5%
Uniformly Distributed Loads (in accordance with AS/NZS 1170: Part 1 up to 20kPa)		Passed
Concentrated loads on joists spaced at 450mm centres (single layer of board 18mm thick) In accordance with AS/NZS 1170.0 Using 0.01m^2 diameter applicator kN Using 350mm^2 applicator (punch test)	 kN kN	 Maximum concentrated load 2.7 1.8
Mildew Growth (no visible growth of Mildew in accordance with HN 0028)		Passed
Acoustic (One hour fire resistant floor system) Airborne Impact		R_w +Ctr 52 LnW + Ci 56 Complying with most residential requirements.
Density (tested to BS 5669: Part 1: 1989, Clause 8)	kg/m^3	Nominal 1100
Emission test (to ASTM D5116-90 for Green Label Singapore)		Within limits set out by the Singapore Environment Council
Steel and timber joists centres		450mm centres

Thickness tolerance of standard boards	mm	± 0.5 for board thickness ≤ 15 ± 1.0 for board thickness > 15
Length x width tolerance of standard boards	mm	± 1
Surface condition		Smooth and fair face on both sides

NOTE 1: Standards and codes may determine that higher loads may need to be considered. A registered structural engineer should be consulted in these instances.

NOTE 2: These tests satisfy the requirements for ultimate limit states.

NOTE 3: If a butt joint does not land on a joist, it shall be supported with a noggin of the same material as the main supports.

NOTE: Eternit SYSTEMFLOOR™ is not a finished product and should always have a floor covering applied to stop mechanical damage and an approved waterproofing system if used in areas where water is present.

Technical Specifications

Flexural strength, Frupture (BS EN 310: 1993)	Longitudinal N/mm^2 Transverse N/mm^2	12.04 10.39
Tensile strength, Trupture (BS5669: Part 1: 1989)	Longitudinal N/mm^2 Transverse N/mm^2	 10.86
Compressive strength (average, perpendicular on board face) (BS 5669: Part 1: 1989)	N/mm^2	10.70

Standard dimensions

Eternit SYSTEMFLOOR™ Dimensions

Thickness	Standard dimensions* (mm x mm)	Module dimension (mm x mm)	Weight (kg/m^2)	Total board weight (kg)
18	650 x 2700	600 x 270	20	32
18	1250 x 2700	1200 x 2700	20	64
18	1200 x 2400	1200 x 2400	20	57

*Other dimensions are available upon request. The properties in above tables are mean values given for information and guidance only. If certain properties are critical for a particular application, it is advisable to consult Eternit.

Eternit SYSTEMFLOOR™ Cement Bound Matrix board is manufactured under a quality management system certified in accordance with ISO 9001: 2008.