

ECO-CEM® DATA SHEET

COVERINGSETC

Eco-cem® are asbestos free double pressed and autoclaved flat boards. They are reinforced with mineralised cellulose fibers and through coloured, with smoothed surface and rectified edges. Eco-cem®- are CE marked according to EN 12467:2016.

Technical Data Sheet (rev.9 del 07/12/2018):

*wet over dry	Unit of Measure	Value
STANDARD DIMENSIONS** AND GEOMETRY		
Length	mm	2500 3000 3050
Width	mm	1200 1250
Thickness		5-6-8-10-12-15-20
Tolerances on nominal dimensions	Classification according to EN 12467:2016	Level 1
- on length	mm	± 2
- on width	mm	± 1
- straightness of edges	%	0,1
- squareness of edges	mm/m	2
- on thickness for smooth sheets	mm	± 0,2
Nominal weight	km/m ²	14,4 (t=8mm) 18,0 (t=10mm) 21,6 (t=12mm)

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PHYSICAL PROPERTIES		
Density (dry)	kg/m ³	1600 ± 50
MECHANICAL PROPERTIES		
E modulus of elasticity (dry)		
- longitudinal	GPa	14
- transversal	GPa	12
E modulus of elasticity (we)		
- longitudinal	GPa	11
- transversal	GPa	9
Bending strength (wet) - untreated sheets	MPa	≥ 18
Bending strength (wet) - hydrophobic treated sheets - transparent acrylic treated sheets - coloured acrylic sheets (Pigmenta)	MPa	≥ 24
Bending strength (dry)	MPa	
- longitudinal	MPa	32
- transversal	MPa	22
Compressive strength	MPa	40
Resistance (Charpy test)	According to	

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*wet over dry

	Unit of Measure	Value
	EN 179-1:2010	
- longitudinal	kJ/m ²	4,3
- transversal	kJ/m ²	3,1
HYGROMETRICAL PROPERTIES		
Natural humidity	%	10 + 15
Max water absorption* (untreated sheets)	%	25 ± 2
Max water absorption* - hydrophobic treated sheets	%	9 ± 3
Max water absorption* - transparent acrylic treated sheets - coloured acrylic treated sheets (Pigmenta)	%	3 ± 2
Moisture movement - Relative humidity change from 30% to 90%		
- longitudinal	mm/m	0,7
- transversal	mm/m	0,8
THERMAL AND WATER VAPOUR PROPERTIES		
Vapor resistance factor, μ - according to EN 12572:2016	---	49
Thermal conductivity - according to EN 12664:2002	W/mK	0,42
Thermal expansion coefficient - according to EN 10545 - 8:2014		
- longitudinal	1/°C	1,71 * 10 ⁻⁶
- transversal	1/°C	0,58 * 10 ⁻⁶

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OTHER PROPERTIES		
Superior calorific power	MJ/kg	0,14
Fire rating class	According to EN 13501-1	A2 s1 d0
Freeze-thaw performance		RL ≥ 0,75
Durability classification	According to EN 12467:2016	category A
Strength classification - untreated sheets	According to EN 12467:2016	class 4
Strength classification - treated sheets	According to EN 12467:2016	class 5
Oils, acids, bases, salts resistance		good
Waterproof - inalterability		absolute
Wear resistance		good
CE marked product according to	---	EN12467:2016

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SECTION I - PRODUCT IDENTIFICATION

Trade Name:	Eco-Cem®
Material Name:	Fiber Cement Board
Date Prepared:	12/12/2006
Chemical Name & Family:	Not Applicable
Formula:	Trade Secret

SECTION II - HAZARDOUS INGREDIENTS

Eco-Cem® does not contain hazardous ingredients

SECTION III - PHYSICAL & CHEMICAL CHARACTERISTICS

Eco-Cem® is made up of 80% Portland Cement (calcium silicate and silica dioxide) which contains 5% fly ash, with 20% Cellulose Fiber (wood pulp).

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

Eco-Cem® materials are stable

Reaction to fire:	0
Reactivity - Stability:	Stable
Unusual Fire and Explosion hazards:	not applicable

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SECTION I - HEALTH HAZARD DATA

Sanding, sawing or grinding may result in the release of dust particles which may cause irritation of the eyes, nose or lungs.

SYMPTOMS:

Skin:	Dryness and/or irritation
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Inhale:	Shortness of Breath or Irritation of Nose
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Eyes:	Irritation
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FIRST AID:

Skin:	Wash with soap and water
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Inhale:	Remove to fresh air
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Eyes:	Rinse with fresh water
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