

1. Product Description

KalsiFlex is a non combustible fiber cement panel, manufactured on Hatschek machine from a precise combination of cement, silica and natural organic reinforcing fibers. During the production, the boards are cured and stabilized in an autoclave process involving high temperature and pressure control, ensuring a final product with optimum dimensional stability and exceptional mechanical properties.

2. Applications

KalsiFlex is suitable for various dry construction applications such as exposed or semi exposed ceiling, drywall linings and/or enclosure that

- a. can be partial or fully finished with ceramic tiles, paint or wallpaper to create beautiful surfaces which is highly resistant to environmental conditions.

3. Benefits

KalsiFlex is an advanced building material, serving as the best alternative to wood, concrete and masonry construction;

- a. Wide variety of thicknesses and applications
- b. Dimensionally stable
- c. Great tensile strength and impact resistant
- d. Moist, mould and water resistant
- e. Resistant to attack of termites, insects and mould growth
- f. Easy to install and work with (cut, nail, screw over metal or timber construction)
- g. Environmental-friendly, no harmful gas emission
- h. Non combustible

4. Dimensions and tolerances:

Available Dimensions

Product	Thickness (mm)	Width x Length (mm)
KalsiFlex	4.5	300 x2400, 450 x 2400, 600 x2400, 750 x2400, 1200 x 2400, 1200 x 2700 900 x 2400, 900 x 2700, 900 x 3000
	6.0	1200 x 2400, 1200 x 2700, 1200 x 3000
	9.0	1200 x 2400, 1200 x 2700, 1200 x 3000

Dimensional Tolerance

Thickness	±0.6 mm , ± 10 %
Width	± 6 mm
Length	± 8 mm
Squareness of Edges	≤ 0.4 %
Straightness of Edges	≤ 0.3 %

Weight (ex-works) based on nominal density plus variation

Thickness (mm)	Weight (kg/m ²)	Weight (kg/ standard sheet)
4.5	+/- 6.39	+/- 19.1
6.0	+/- 8.52	+/- 25.4
9.0	+/- 12.78	+/- 38.1

Thicknesses, sizes, and types of the sheets which differ from those available as standard, are available subject to minimum order quantities. Please contact Etex Building Performance Indonesia for more information.

5. Technical Properties

The product has been tested based on internationally recognized standards and test methods for the fiber cement flat sheet and building material requirements such as EN 12467, AS/ NZS 2908.2 ASTM C1185, BS 476 relevant parts on material reaction to fire and EN13501 fire classification standards.

Physical and Mechanical Properties	Value	Standard
Dimensional Conformity	Passed	AS/NZS 2908.2
- Thickness		
- Length		
- Width		
- Straightness of edges		
- Squareness of edges		
Density (average)	> 1250 kg/m ³	AS/NZS 2908.2
Bending strength (Type A – Category 3 average)	> 7.0 MPa	AS/NZS 2908.2
(Type B - Category 3 average)	> 10.0 MPa	
Bending Elastic Modulus (ambient)	> 8500 MPa	AS/NZS 2908.2
Water absorption	33 ± 2 %	ASTM C1185
Moisture content	10 - 15 %	ASTM C1185
Moisture movement (Hygric) – Relative Humidity from 30% to 90%	≤ 0.05 %	EN 12467:2016
Thermal conductivity	0.25 W/mK	ASTM C518:2010
Durability (Type A Requirement)	Value	Standard
Water permeability	Passed	AS/NZS 2908.2
Warm water performance	Passed	AS/NZS 2908.2
Heat-rain performance – Category A	Passed 50 Cycles	EN 12467:2016
Soak-dry performance – Category A	Passed 50 Cycles	EN 12467:2016
Frost resistance	Passed 50 Cycles	AS/NZS 2908.2
Reaction to Fire	Value	Standard
Non Combustibility	Non Combustible	BS 476 Part 4:1970
Heat Release Smoke Production and Mass Loss	Group 1	ISO 5660 Part 1:2015
Fire Hazard Properties		
Ignitability Index	0	AS 1530 Part 3:1999
Spread of Flame Index	0	
Heat Evolved Index	0	
Smoke Development Index	1	
Heat Emission	Pass	BS 476 Part 11:1982
Fire classification using test data from reaction to fire tests	Class A1	EN 13501-1:2007 + A1:2009

All material properties and physical performance are mean values given for information and guidance only.

If certain properties are critical for particular application, it is advisable to consult Etex Building Performance Indonesia. Etex Building Performance Indonesia reserves the right to amend this information sheet without prior notice.

6. Health and safety aspects

During the mechanical machining of panels, airborne dust which may be hazardous to health, may be released.

Avoid direct contact of dust with skin and eyes as they may cause irritation.

The use of dust extraction equipment is advised. Respect regulatory occupational exposure limits for total inhalable and respirable dust.

For more information, please check the Material Safety Data Sheet before working with the product.

7. Certification

All Etex Building Performance Indonesia products are manufactured in line with the ISO standards. Etex Building Performance Indonesia manufacturing facility achieved the certificates of ISO 9001:2008, ISO 14001:2015 and OHSAS 18001:2007. These certificates can also be downloaded from www.kalsi.co.id.

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For technical assistance please contact:

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