KalsiFloor

Technical Data Sheet

Date: 10 Dec 2020



1. Product Description

KalsiFloor 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

KalsiFloor is suitable for internal intermediate or laid-on flooring applications,

- a. can be directly finished with carpeting or vinyl tiles) in residential or office projects
- b. can be directly finished with reinforced mortar screed/ high performance coating in industrial and heavy-duty applications

It is a superb alternative to concrete slabs by offering an incredibly lightweight solution with simple, fast and clean installation.

3. Benefits

KalsiFloor is an advanced building material, serving as the best alternative to conventional wood or other wood/ cement based products;

- a. Wide variety of thicknesses and applications
- b. Dimensionally stable
- c. Impact resistant
- d. Moist, mould and water resistant
- e. Resistant to attack of termites, insects and other vermin
- f. Easy to install and work with
- g. Environmental-friendly, no harmful gas emission
- h. Non combustible

4. Dimensions and tolerances:

Available Dimensions

Product	Thickness (mm)	Width x Length (mm)
KalsiFloor	15.0	1200 x 2400, 1220 x 2440
,	18.0	1200 x 2400, 1220 x 2440
	20.0	1200 x 2400, 1220 x 2440

Dimensional Tolerance

Thickness	± 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/m²)	Weight (kg/sheet)
15.0	+/- 21.30	+/- 63.5
18.0	+/- 25.56	+/- 76.1
20.0	+/- 28.40	+/- 84.6

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.



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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 ISO 8336, EN 12467, ASTM C1185, BS 476 relevant parts on material reaction to fire and EN13501 fire classification standards.

Physical and Mechanical Properties	Value	Standard
Dimensional Conformity	Level II	ISO 8336
- Thickness	(Pass)	
- Length		
- Width		
- Straightness of edges		
- Squareness of edges		
Density (average)	> 1250 kg/m ³	ISO 8336
Bending strength (Category C - Class 3 average)	> 10.0 MPa	ISO 8336
Bending Elastic Modulus (ambient)	> 8500 MPa	ISO 8336
Water absorption	33 ± 2 %	ASTM C1185
Moisture content	10 - 15 %	ASTM C1185
Moisture movement (Hygric) –	≤ 0.04 %	ISO 8336
Relative Humidity from 30% to 90%		
Thermal conductivity	0.25 W/mK	ASTM C518:2010
Durability	Value	Standard
Heat-rain performance – Category C	Not Required	ISO 8336
Warm water performance	Passed	ISO 8336
Soak-dry performance – Category C : 25 Cycles	Passed 50 Cycles	ISO 8336
Freeze-thaw performance – Category C	Not Required	EN 12467:2016
Freeze-thaw performance – Category C Reaction to Fire	Not Required Value	EN 12467:2016 Standard
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Reaction to Fire	Value	Standard
Reaction to Fire Non Combustibility	Value Non Combustible	Standard BS 476 Part 4:1970
Reaction to Fire Non Combustibility Surface spread of flame	Value Non Combustible Class 1	Standard BS 476 Part 4:1970 BS 476 Part 7:1997
Reaction to Fire Non Combustibility Surface spread of flame	Value Non Combustible Class 1 I = 2.3	Standard BS 476 Part 4:1970 BS 476 Part 7:1997
Reaction to Fire Non Combustibility Surface spread of flame	Value Non Combustible Class 1 I = 2.3 i1 = 2.1	Standard BS 476 Part 4:1970 BS 476 Part 7:1997
Reaction to Fire Non Combustibility Surface spread of flame	Value Non Combustible Class 1 I = 2.3 i1 = 2.1 i2 = 0.1	Standard BS 476 Part 4:1970 BS 476 Part 7:1997
Reaction to Fire Non Combustibility Surface spread of flame Fire propagation index	Value Non Combustible Class 1 I = 2.3 i1 = 2.1 i2 = 0.1 i3 = 0.1	Standard BS 476 Part 4:1970 BS 476 Part 7:1997 BS 476 Part 6:1989

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.



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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:

Unit 19-02-01 Wisma Tune, 19 Lorong Dungun, Damansara Heights, 50490 Kuala Lumpur, Malaysia **T** +60 (3) 2095 5111 **F** +60 (3) 2095 6111 **E** info@kalsi-building-solutions.com **www.kalsi-building-solutions.com**

