KalsiFloor Technical Data Sheet



Date: 08 July 2021

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, 1200 x 1500, 1200 x 1800
	20.0	1200 x 2400, 1220 x 2440, 1200 x 1800

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/ standard 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 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		AS/NZS 2908.2
(Type A – Category 3 average)	> 7.0 MPa	
(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) –	≤ 0.05 %	EN 12467:2016
Relative Humidity from 30% to 90%		
Thermal conductivity	0.25 W/mK	ASTM C518:2010
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Durability (Type A Requirement)	Value	Standard
·	Value Passed	Standard AS/NZS 2908.2
Durability (Type A Requirement)		
Durability (Type A Requirement) Water permeability	Passed	AS/NZS 2908.2
Durability (Type A Requirement) Water permeability Warm water performance	Passed Passed	AS/NZS 2908.2 AS/NZS 2908.2
Durability (Type A Requirement) Water permeability Warm water performance Heat-rain performance – Category A	Passed Passed Passed 50 Cycles	AS/NZS 2908.2 AS/NZS 2908.2 EN 12467:2016
Durability (Type A Requirement) Water permeability Warm water performance Heat-rain performance – Category A Soak-dry performance – Category A	Passed Passed 50 Cycles Passed 50 Cycles	AS/NZS 2908.2 AS/NZS 2908.2 EN 12467:2016 EN 12467:2016
Durability (Type A Requirement) Water permeability Warm water performance Heat-rain performance — Category A Soak-dry performance — Category A Frost resistance	Passed Passed Passed 50 Cycles Passed 50 Cycles Passed 50 Cycles	AS/NZS 2908.2 AS/NZS 2908.2 EN 12467:2016 EN 12467:2016 AS/NZS 2908.2
Durability (Type A Requirement) Water permeability Warm water performance Heat-rain performance – Category A Soak-dry performance – Category A Frost resistance Reaction to Fire	Passed Passed Passed 50 Cycles Passed 50 Cycles Passed 50 Cycles Value	AS/NZS 2908.2 AS/NZS 2908.2 EN 12467:2016 EN 12467:2016 AS/NZS 2908.2 Standard
Durability (Type A Requirement) Water permeability Warm water performance Heat-rain performance — Category A Soak-dry performance — Category A Frost resistance Reaction to Fire Non Combustibility Heat Release Smoke Production and Mass Loss Fire Hazard Properties	Passed Passed 50 Cycles Passed 50 Cycles Passed 50 Cycles Value Non Combustible	AS/NZS 2908.2 AS/NZS 2908.2 EN 12467:2016 EN 12467:2016 AS/NZS 2908.2 Standard BS 476 Part 4:1970
Durability (Type A Requirement) Water permeability Warm water performance Heat-rain performance – Category A Soak-dry performance – Category A Frost resistance Reaction to Fire Non Combustibility Heat Release Smoke Production and Mass Loss Fire Hazard Properties Ignitability Index	Passed Passed 50 Cycles Passed 50 Cycles Passed 50 Cycles Value Non Combustible	AS/NZS 2908.2 AS/NZS 2908.2 EN 12467:2016 EN 12467:2016 AS/NZS 2908.2 Standard BS 476 Part 4:1970
Durability (Type A Requirement) Water permeability Warm water performance Heat-rain performance – Category A Soak-dry performance – Category A Frost resistance Reaction to Fire Non Combustibility Heat Release Smoke Production and Mass Loss Fire Hazard Properties Ignitability Index Spread of Flame Index	Passed Passed Passed 50 Cycles Passed 50 Cycles Passed 50 Cycles Value Non Combustible Group 1	AS/NZS 2908.2 AS/NZS 2908.2 EN 12467:2016 EN 12467:2016 AS/NZS 2908.2 Standard BS 476 Part 4:1970 ISO 5660 Part 1:2015
Durability (Type A Requirement) Water permeability Warm water performance Heat-rain performance — Category A Soak-dry performance — Category A Frost resistance Reaction to Fire Non Combustibility Heat Release Smoke Production and Mass Loss Fire Hazard Properties Ignitability Index Spread of Flame Index Heat Evolved Index	Passed Passed Passed 50 Cycles Passed 50 Cycles Passed 50 Cycles Value Non Combustible Group 1	AS/NZS 2908.2 AS/NZS 2908.2 EN 12467:2016 EN 12467:2016 AS/NZS 2908.2 Standard BS 476 Part 4:1970 ISO 5660 Part 1:2015
Durability (Type A Requirement) Water permeability Warm water performance Heat-rain performance – Category A Soak-dry performance – Category A Frost resistance Reaction to Fire Non Combustibility Heat Release Smoke Production and Mass Loss Fire Hazard Properties Ignitability Index Spread of Flame Index	Passed Passed Passed 50 Cycles Passed 50 Cycles Passed 50 Cycles Value Non Combustible Group 1 0 0	AS/NZS 2908.2 AS/NZS 2908.2 EN 12467:2016 EN 12467:2016 AS/NZS 2908.2 Standard BS 476 Part 4:1970 ISO 5660 Part 1:2015
Durability (Type A Requirement) Water permeability Warm water performance Heat-rain performance — Category A Soak-dry performance — Category A Frost resistance Reaction to Fire Non Combustibility Heat Release Smoke Production and Mass Loss Fire Hazard Properties Ignitability Index Spread of Flame Index Heat Evolved Index	Passed Passed Passed 50 Cycles Passed 50 Cycles Passed 50 Cycles Value Non Combustible Group 1 0 0 0	AS/NZS 2908.2 AS/NZS 2908.2 EN 12467:2016 EN 12467:2016 AS/NZS 2908.2 Standard BS 476 Part 4:1970 ISO 5660 Part 1:2015
Durability (Type A Requirement) Water permeability Warm water performance Heat-rain performance – Category A Soak-dry performance – Category A Frost resistance Reaction to Fire Non Combustibility Heat Release Smoke Production and Mass Loss Fire Hazard Properties Ignitability Index Spread of Flame Index Heat Evolved Index Smoke Development Index	Passed Passed Passed 50 Cycles Passed 50 Cycles Passed 50 Cycles Value Non Combustible Group 1 0 0 0 1	AS/NZS 2908.2 AS/NZS 2908.2 EN 12467:2016 EN 12467:2016 AS/NZS 2908.2 Standard BS 476 Part 4:1970 ISO 5660 Part 1:2015 AS 1530 Part 3:1999

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:

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