

1. Product Description

KalsiPlank is a non combustible fiber cement siding, 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

KalsiPlank is suitable for internal or external siding application and for residential cladding,

- a. can be easily cut, nailed and drilled
- b. can be installed in two methods: Overlapped Siding or Interlocking Siding

The boards are available in smooth surface or in **Wood Series** (three attractive wooden textured surface : Jati, Meranti and Cedar). Certain products are available in Interlocking format.

3. Benefits

KalsiPlank is an advanced building material, serving as the best alternative to conventional wood or timber products, resolving most of the problems associated with timber;

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

4. Dimensions and tolerances:

Available Dimensions

| Product | Thickness (mm) | Width (mm) | Length (mm) |
|-----------------------|-----------------|--------------------|------------------------------------|
| KalsiPlank | 7.5, 8.0, 9.0 | 200, 230, 300 | 2400, 2440, 3000, 3600, 3660, 4000 |
| KalsiPlank Cedar | 7.5, 8.0, 9.0 | 200, 230, 300 | 2400, 2440, 3000, 3000, 3000, 4000 |
| KalsiPlank Senepa | 9.0, 10.0, 12.0 | 205, 250, 305 | 2440 |
| KalsiPlank Jati | 8.0, 9.0 | 150, 200, 230, 300 | 2400, 2440, 3000 |
| KalsiPlank-IL | | | |
| KalsiPlank Jati-IL | 10.0 | 200 | 3000 |
| KalsiPlank Meranti-IL | | | |

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) |
|-----------------|---------------------------------|-------------------|
| 7.5, 8.0 | +/- 10.65, +/- 11.36 | Varies |
| 9.0, 10.0, 12.0 | +/- 12.78, +/- 14.20, +/- 17.04 | Varies |

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 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 A - Class 2 average) | > 7.0 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 A : 50 Cycles | Passed | ISO 8336 |
| Warm water performance | Passed | ISO 8336 |
| Soak-dry performance – Category A : 50 Cycles | Passed | ISO 8336 |
| Freeze-thaw performance – | Passed | EN 12467:2016 |
| Category A : 100 Cycles | | |
| Reaction to Fire | Value | Standard |
| Non Combustibility | Non Combustible | BS 476 Part 4:1970 |
| Surface spread of flame | Class 1 | BS 476 Part 7:1997 |
| Fire propagation index | = 2.3 | BS 476 Part 6:1989 |
| | i1 = 2.1 | |
| | i2 = 0.1 | |
| | i3 = 0.1 | |
| Heat Emission | Pass | BS 476 Part 11:1982 |
| Fire classification using test data from reaction | Class A1 | EN 13501-1:2007 + A1:2009 |
| to fire tests | | |

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 <u>www.kalsi.co.id</u>.

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