

## 1 Product composition

ETER-BOARD HD sheets consist of the following:

- Portland cement
- fine mineral fillers providing extra smooth surface
- organic reinforcing fibres
- functional additives

## 2 Production method

ETER-BOARD HD sheets are manufactured on a Hatschek machine and are double pressed and autoclaved. Optionally the sheets can be rectified.

## 3 Dimensions and tolerances

Thickness (mm)	6	8	10	12	15	18
Weight ex-works (kg/m <sup>2</sup> )	11.2	14.9	18.6	22.4	27.9	33.5

Dimensions and gross weight per sheet

Dimensions (mm)	Weight ex-works (kg/sheet)					
1,240x2,520 non-rectified	35.0	46.6	58.1	70.0	87.2	104.7
1,220x2,500 rectified	34.2	45.4	56.7	68.4	85.1	102.2

Tolerance

Tolerance	Complies with EN 12467 (level I)
Thickness (mm)	± 10%
Length and width (mm)	± 3
Squareness (mm/m)	1.0

Thicknesses, sizes and types of the sheets which differ from those available as standard from stock are available subject to minimum order quantities. Please contact EURO PANELS OVERSEAS for more information.

## 4 Colour

ETER-BOARD HD sheets have a beige colour. Stains in the surface, for instance brown or white spots peculiar to the autoclave process, are occasionally possible and are inherent to the production.

## 5 Technical properties

Average values according to the European standard EN 12467 'Fibre-cement flat sheets', which describes classification and most testing methods.

A. Testing according to ISO quality management system					
			<20mm	≥20mm	
Density	Dry	EN 12467	1,580	1,550	kg/m <sup>3</sup>
Bending strength	Ambient, ⊥	EN 12467	32.0	30.0	N/mm <sup>2</sup>
	Ambient, //	EN 12467	22.0	21.0	N/mm <sup>2</sup>
Modulus of elasticity	Ambient, ⊥	EN 12467	15,000	13,000	N/mm <sup>2</sup>
	Ambient, //	EN 12467	15,000	11,000	N/mm <sup>2</sup>
Delamination resistance	Ambient		1.80	1.80	N/mm <sup>2</sup>
Hygric movement	0-100%, mean		1.60	1.80	mm/m
Porosity	0-100%		20	22	%
B. Classification					
Durability classification		EN 12467	Category A		
Strength classification		EN 12467	Class 4		
Fire reaction		EN 13501-1	A2-s1-d0		
C. Type test or best estimate					
Impermeability test		EN 12467	Ok		
Warm water test		EN 12467	Ok		
Soak dry test		EN 12467	Ok		
Freeze thaw test		EN 12467	Ok		
Thermal expansion coefficient	α		15*10 <sup>-6</sup>	m/mK	
Thermal conductivity coefficient	λ		0.36	W/mK	
Water vapour diffusion resistance number	μ		250		

## 6 Advantages

Providing the application guidelines are followed, EURO PANELS OVERSEAS fibre-cement sheets have the following superior mix of properties compared to other materials:

- fire safe (no fire ignition, no spread of fire)
- sound insulating
- resistant to extreme temperatures
- water resistant (if in compliance with application guideline)
- resistant to many living organisms (fungi, bacteria, insects, vermin, etc.)
- resistant to many chemicals
- environmentally friendly, no harmful gas emissions

## 7 Applications

- Industrial: permanent formwork, protection for insulated foundations, sandwich panels (specify with command; application is a responsibility of the producer of the sandwich panels), cable trays, securing board, oven plate, damming water treatment, trapdoor, well cover, table work surface, window sill inside, shelf, skirting
- Agricultural: partitions, feed troughs, nursery trays, garden partition element

## 8 Application data

!!: Sawing and drilling must take place in a dry environment. Sawdust and drillings must be immediately removed from the sheet with a dry micro-fibre towel. Not removed sawdust and drillings can cause permanent stains.

During the mechanical machining of panels, adequate machinery with dust extraction and/or ventilation should be foreseen. If dust extraction is not efficient, dust masks of type FFP2 or better according EN149:2001 should be used.



Cutting/Sawing:

When working on the sheet it must be sufficiently supported so that it does not sag. The sawing bench must be very stable and may not vibrate. The sheet may not be under tension when sawing. The sheet must be free of vibration and tension during sawing for a good saw cut. Cutting in the wrong way can cause delamination problems of the edge.

- Hand circular saw with rail or stationary sawing machines: fast rotation with Universal Euro Panels Overseas cutting blade available at Leitz-Service (available diameters: 160, 190, 225 and 300 mm)
- Jigsaw with carbide-tipped tooth cutting blade type T141 HM from Bosch (available from Euro Panels Overseas)
  - Sawed edges must be smoothed with sandpaper (grain P80)

Drilling:

The sheet should be supported around the hole to be drilled (e.g. by a wooden surface).

- for holes: carbide-tipped twist drill (or completely in carbide) with a 60° nose angle (available from Euro Panels Overseas) Available diameters: 5.0 – 6.0 – 7.0 – 8.3 – 9.5 – 11.0 mm
- for round apertures: hole saw with carbide-tipped teeth (e. g. type Pionier from Metabo)

Fastening accessories:

Depending on the application the following fastening accessories can be used (see application instructions for more information). The material (e.g. stainless steel, galvanised steel, phosphated steel) is also chosen depending on the application.

- Adhesive: Can be fixed with adhesive for exterior and interior applications. The adhesive is to be used in accordance with the application guidelines and guarantee conditions of the adhesive supplier. Further information is available from EURO PANELS OVERSEAS.
- Screws: Can be used in completely pre-drilled holes only.
- Rivets: Can be used in completely pre-drilled holes only.

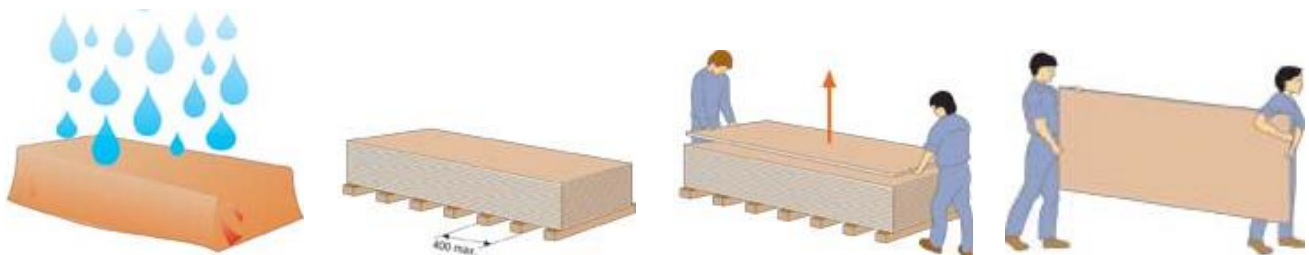
Sealant:

Only use neutral sealants. Non-neutral silicones or thiokols can result in spots.

Coating:

- Covering: ETER-BOARD HD can be coated for exterior and interior applications. The sheet may not be differentially loaded, this to guarantee dimensional stability. This can be achieved by treating the sheet on both sides with the same coating system, or by using a back coating with the same diffusion characteristics as the coating system on the image side. Alternatively, very vapour open coatings (e.g. mineral coatings) can be applied only on one side of the sheet. Other parameters are the system construction, the dimensions of the sheet, and the temperature and moisture loads. More information is available from EURO PANELS OVERSEAS.

**9 Handling**



The sheets are packaged on pallets. They are to be transported under a tarpaulin. The sheets must be horizontally stacked on a flat surface. The sheets must always be sufficiently supported so that they do not sag. The sheets must be stacked in a dry ventilated space. If the sheets are stored outside, they must always be protected against rain by a tarpaulin or plastic cover. If the sheets do become wet in the packing, all packaging must be removed and placed in a way that they can dry out thoroughly. It is recommended to allow the sheets to acclimatise in the space where they are to be used. A sheet must always be lifted from a stack by two persons and then be carried vertically. A foil always has to remain between the stacked sheets in order to prevent paint damage.

## 10 Health and safety aspects

During the mechanical machining of panels, dust can be released which can irritate the airways and eyes. Apart from this, the inhalation of fine (respirable size) quartz containing dust, particularly when in high concentrations or over prolonged periods of time can lead to lung disease and an increased risk of lung cancer. Depending on the working conditions, adequate machinery with dust extraction and/or ventilation should be foreseen. For more ample information, please check the Safety Data Sheet (based on 1907/2006/EC, article 31).

## 11 Warranty

The warranty on the product is only valid if the EURO PANELS OVERSEAS application guidelines are respected. If in any doubt regarding the suitability of EURO PANELS OVERSEAS sheets in any given application, it is advisable to request specific recommendations from EURO PANELS OVERSEAS. Under no circumstances can EURO PANELS OVERSEAS be held liable for applications of their sheets implemented without approval from EURO PANELS OVERSEAS.

## 12 Maintenance and cleaning

For minor soiling, washing with a mild household detergent or soft soap solution followed by rinsing with clear water.

## 13 Certification

The manufacturer can - within the framework of the European Regulation N° 305/2011 (CPR) - present the Declaration of Performance (DOP) of the product such confirming that the product has a CE marking. The CE marking guarantees that the product is in accordance with the basic requirements determined by the harmonized European standard and applicable to the product. The Declaration of Performance is presented in accordance with the CPR and can be found at [www.infodop.com](http://www.infodop.com). The manufacturer is also ISO certified.



## 14 More information

Information about the various applications can be found in the EURO PANELS OVERSEAS application guidelines. They can be found on the website or be obtained on demand by phone. Information about external suppliers can also be downloaded from the website.

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