

1 Product composition

ETER-COLOR sheets consist of the following:

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

2 Production method

ETER-COLOR sheets are manufactured on a Hatschek machine, are double pressed, autoclaved, calibrated and polished. Afterwards ETER-COLOR is made water repellent on front and back by means of a hydrofobation.

3 Dimensions and tolerances

Thickness	Possible fixing method
8 mm	Screws, rivets, adhesive

Dimensions

Not rectified	Rectified
1,240 x 2,520 mm	1,220 x 2,500 mm
1,240 x 3,070 mm	1,220 x 3,050 mm

For façade or ceiling applications only rectified boards may be used, non-rectified boards should not be used uncut.

Tolerances; in accordance with EN 12467 (level I)

	Not rectified	After cutting
Thickness	± 0.5 mm	± 0.5 mm
Length and width	± 5.0 mm	± 3 mm
Squareness	2.0 mm/m	1.0 mm/m

Weight (ex-works)

Thickness	Weight	1.240 x 2.520 mm	1.240 x 3070
8 mm	14.9 kg/m ²	46.5 kg/sheet	56.7 kg/sheet

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 NV for more information.

4 Colour

The colour is through-out the sheet. Natural colour differences, possibly accentuated by the orientation of the sheet, the viewing angle and the effects of light and moisture, are possible. The sheet becomes a little lighter with aging. The surface of the sheet is characterised by fine sanding lines and white spots.

For an overview of the standard colours we refer to the most recent EURO PANELS OVERSEAS NV colour chart. However it is technically impossible that this chart represents the colours realistically. Therefore the final choice of the colour has to be made with samples. Other colours are available upon request for minimum orders. All sheets have to be ordered at the same time since a slight colour difference is possible due to different productions.

Colour differences are measured according a simplified CIELAB colour model, by which only the lightness of the colour is checked. Tolerated colour differences are $\Delta L^* = \pm 2.50$.

5 Technical properties

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

<i>A. Testing according to ISO quality management system</i>				
Density	Dry	EN 12467	1,580	kg/m ³
Bending strength	Ambient, ⊥	EN 12467	32.0	N/mm ²
	Ambient, //	EN 12467	22.0	N/mm ²
Modulus of elasticity	Ambient, ⊥	EN 12467	> 14,000	N/mm ²
	Ambient, //	EN 12467	> 12,000	N/mm ²
Hygic movement	0-100%, mean		1.60	mm/m
Porosity	0-100%		< 25	%
<i>B. Classification</i>				
Durability classification		EN 12467	Category A	
Strength classification		EN 12467	Class 4	
Fire reaction		EN 13501-1	A2-s1-d0	
<i>C. Type test or best estimate</i>				
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	a		< 0,01	mm/mK
Thermal conductivity	λ		0.390	W/mK

6 Advantages

Providing the application guidelines are followed, EURO PANELS OVERSEAS NV 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

In addition, ETER-COLOR has the following specific properties:

- strong and rigid sheet
- smooth aesthetic surface with natural hues
- natural pure colour

7 Applications

ETER-COLOR can be used in the following applications:

- Façade: façade cladding
- Exterior ceiling: decorative cladding of ceiling

8 Available factory finishing

ETER-COLOR can be supplied by EURO PANELS OVERSEAS NV cut to size. Holes 5 to 11 mm in diameter for visible fixing can be factory pre-drilled.

9 Application data

!!: Sawing and drilling must take place in a dry environment. For decorative applications, 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 processing 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.

- Circular saw with guidance
 - Use preferably the universal saw blade with carbide diamond-tipped teeth for fibre cement,
 - Available diameters: 160 and 190mm (available from Leitz-Service)
- Jigsaw
 - Use preferably a saw blade with carbide tipped teeth for fibre cement (e.g. Bosch type T141 HM, available from EURO PANELS OVERSEAS NV)
- Sawed edges must be smoothed with sandpaper (grain P80)

Drilling:

The sheet is best supported around the hole to be drilled (e.g. by a wooden table).

- for holes: carbide-tipped twist drill (or completely in carbide) with a 60° nose angle (available from EURO PANELS OVERSEAS NV)
 - 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)
 - Sawed edges must be smoothed with sandpaper (grain P80)

Fastening accessories:

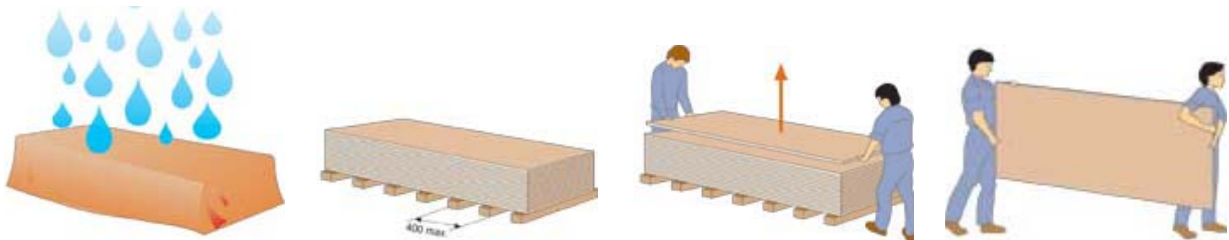
Depending on the application the following fastening accessories can be used (see application instructions for more information).

- Screws: Can be used in completely pre-drilled holes only.
- Rivets: Can be used in completely pre-drilled holes only.
- Adhesive: Can be fixed with adhesive. The adhesive is to be used in accordance with the application guidelines and guarantee conditions of the adhesive supplier.

Sealant:

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

10 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 sufficient 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 the sheets must be 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. Ensure that foil is always placed between stacked sheets to avoid paint damage.

11 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 according to 91/155/EEC.

12 Warranty

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

13 Maintenance and cleaning

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

14 Certification

The manufacturer is able to deliver the CE declaration in terms of the European Construction Products Directive. The products are delivered with the KOMO-certificate which guarantees the conformity to the CE-label and to the standard NBN EN 12467 "Fibre-cement flat sheets". The manufacturer is also ISO certified.



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15 More information

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

This product information sheet replaces any previous editions. EURO PANELS OVERSEAS NV reserves the right to amend this information sheet without prior notice. Readers should always satisfy themselves that they are referring to the most recent version of this document. No part of this text can be changed without permission of EURO PANELS OVERSEAS NV.

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