



HYDROPANEL

Product Information Sheet¹

1 Product composition

HYDROPANEL sheets consist of the following:

- Portland cement
- selected mineral fillers providing extra high dimensional stability and low hygric movement
- organic reinforcing fibres
- functional additives

2 Production method

HYDROPANEL sheets are manufactured on a Hatschek machine and are autoclaved. The following mechanical operations can be performed depending on the application:

- rectify
- calibrate thickness by sanding
- bevel the longitudinal edges (=BE : Beveled Edge)
- water repelling by hydrofobation with silane

3 Standard dimensions, weight and tolerances²

	HYDROPANEL 2 BE		HYDROPANEL 0 BE		HYDROPANEL 4BE
Hatschek press	Yes		Yes		Yes
Double press	No		No		No
Autoclave	Yes		Yes		Yes
Rectified	Yes		Yes		Yes
Calibrated	Yes		Yes		Yes
Bevelled edges	Yes		No		Yes
Water repelling	No		No		No
Colour	Beige		Beige		Beige
Thickness (mm)	9 mm	12 mm	9 mm	6 mm	9 mm
Weight ex-works (kg/m ²)	12.7	17.0	12.7	8.5	12.7
Dimension (mm)	weight ex-works (kg/sheet)				
900x1,200	-	-	13,7	-	13.7
1,200x2,500	-	-	-	25.5	38.1
1,200x2,600	39.6	53.0	-	-	-
1,200x3,000	45.7	61.2	-	-	-
600x2,600	19.8	26.5	-	-	-
600x3,000	22.9	-	-	-	-
Tolerance	Complies with EN 12467 (level I)				
Thickness (mm)	± 0.5				
Length and width (mm)	± 3				
Squareness (mm/m)	1.0				

¹ This product information sheet replaces any previous editions. ETERNIT 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.

² 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 ETERNIT for more information.



4 Technical properties (average values)

The CE-mark is based on 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	1.180	Kg/m ³
Bending strength	Ambient, ⊥	EN 12467	23,0	N/mm ²
	Ambient, //	EN 12467	17,0	N/mm ²
Modulus of elasticity	Ambient, ⊥	EN 12467	10.000	N/mm ²
	Ambient, //	EN 12467	10.000	N/mm ²
Delamination resistance	Ambient		0,50	N/mm ²
Hygrical movement	0-100%, mean		1,20	mm/m
Porosity	0-100%		40	%
<i>B. Classification</i>				
Durability classification		EN 12467	Category B	
Strength classification		EN 12467	Class 2	
Fire reaction classification		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			6.5*10 ⁻⁶	m/mK
Thermal conductivity coefficient			0.19	W/mK
Water vapour diffusion resistance			17-21	-

5 Advantages

Providing the application guidelines are followed, ETERNIT fibre cement sheets have the following superior mix of properties compared to other materials such as gypsum board and wood based board:

- fire safe (no fire ignition, no spread of fire)
- high contribution to sound insulating systems
- 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

6 Applications

HYDROPANEL can be used in the following applications:

- Interior walls: high performance separating wall, backer board for tiling, sound insulating separating wall, impact resistant separating wall
- Interior floors: backer board for tiling
- Sealing: board for painted sealing

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



7 General application data

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.

- stationary saw, slow rotation with blade with carbide-tipped teeth or fast rotation with diamond cutting blade without teeth
- hand circular saw (with rail) slow rotation with blade with carbide-tipped teeth or fast rotation with diamond cutting blade without teeth
- jigsaw with carbide-tipped tooth cutting blade
- cut and snap: cut both sides with draw-hook with carbide-tipped tooth and snap on a supported edge

Edge finish:

- a moulding cutter in order to bevel the edges on-site
- fine emery cloth or sanding block

Drilling:

- for holes: carbide-tipped twist drill (or completely in carbide) with a 60° nose angle
- for round apertures: cup drill or circular cutter, carbide-tipped

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

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.

- Screws: Can be screwed directly without predrilling.
- Nailing: Can be nailed directly without predrilling. The head of the nail may not be driven too deep in the sheet. The pneumatic nailing machine is regulated with constant depth.
- Stapling: The back of the staple may not be driven too deep in the sheet. The pneumatic nailing machine is regulated with constant depth.

Joint treatment:

See ETERNIT application guidelines.

Coating:

The sheet can be coated for interior applications with vapor-open coatings (e.g. water based acrylate dispersion). For more information see ETERNIT application guidelines and the guidelines of the supplier of the coating.

Sealant:

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

8 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.



9 Maintenance and cleaning

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

10 Transport and storage

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 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.

11 More technical information

More information can be found in the ETERNIT application guidelines, ETERNIT treatment guidelines, ETERNIT cleaning guidelines, ETERNIT tender specifications, ETERNIT Material Safety Data Sheet, ETERNIT warranty declarations, ETERNIT price list, ETERNIT website, etc.



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