

Hydewa EPS-Sandwichpanel

Glasbord®/ FRP-EPS-Glasbord®/ FRP / Sheet / Alu

TECHNICAL DATA SHEET (14.08.2024 / Rev 4)



Description

Hydewa EPS sandwich systems are suitable as facing shells, self-supporting partition walls or ceiling elements in the interior of the building envelope without structural verification. EPS (expanded polystyrene) serves as the insulating core, which can be laminated on one or both sides with Glasbord® / FRP cover layers, sheet metal or coarse-grain aluminum foil. The EPS core achieves very good insulating properties. At the same time, the panels remain stable and transportable. The chemically resistant, easy-to-clean cover layer made of Glasbord®/FRP (glass fiber reinforced synthetic resin) ensures optimum hygiene conditions thanks to its unique surface (Surfaseal® for Glasbord®).

Technical data

Length(l) x width(w) :	2 m - 12 m x 1.19 m (other lengths on request) Please note the material expansion due to climatic conditions!
Cover layer front side:	Glasbord® / GRP flat or structured in thicknesses from 1.5 mm, to 2,3 mm in various designs (see separate surface data sheets). Standard color: white (other colors possible).
Technical data Insulation core:	EPS rigid foam in accordance with EN 13163:2012+A1:2015 In 100 - 200 KPa WLG 040 or 035
Thickness:	20-240 mm
Dimensions:	width 1190 mm / possible production length max. 12 m Lengths depend on the structural conditions and the panel thickness
Element connection:	Blunt cut at top / bottom, lateral groove milling for a loose EPS tongue Design adapted to the respective panel thickness
Fire classification:	E according to DIN EN 13501
Rear cover layer:	See front side or 0.5 mm sheet steel S250GD with 25µm protective lacquer RAL 9010, Aluminum coarse-grain foil 0.08 mm with protective lacquer (grey) or FRP 1,2 mm

Weight & U-value

For insulation, we use EPS rigid foam in accordance with EN 13163:2012+A1:2015 with WLG 035 or WLG 040, and the following data for the respective panel thicknesses can be derived from the design values.

Panel thickness	~	20 mm	40 mm	60 mm	80 mm	100 mm	120 mm
Weight (min./max.kg/m ²) FRP/FRP	~	4,57-7,67	5,01-8,13	5,46-8,60	5,90-90,6	6,34-9,52	6,78-9,98
Weight (min./max.kg/m ²) Smetall	~	7,04-8,48	7,48-8,94	7,92-9,40	8,36-9,86	8,81-10,33	9,25-10,79
Weight (min./max. kg/m ²) FRP/Alu	~	3,08-4,52	3,52-4,98	3,96-5,44	4,41-5,90	4,85-6,37	5,29-6,836
U-value WLG 035 W/(m ² * K)	~	1,750	0,875	0,583	0,438	0,350	0,292
U-value WLG 040 W/(m ² * K)	~	2,000	1,000	0,667	0,500	0,400	0,333

Panel thickness	~	140 mm	160 mm	180 mm	200 mm	220 mm	240 mm
Weight (min./max.kg/m ²)FRP/FRP	~	7,22-10,44	7,66-10,91	8,10-11,37	8,54-11,83	8,98-12,29	9,42-12,75
Weight (min./max. kg/m ²) Smetall	~	9,69-11,25	10,13-11,71	10,57-12,17	11,01-12,64	11,45-13,10	11,89-13,56
Weight (min./max.kg/m ²) FRP/Alu	~	5,73-7,29	6,17-7,75	6,61-8,21	7,05-8,68	7,49-9,14	7,93-9,60
U-value WLG 035 W/(m ² * K)	~	0,250	0,219	0,194	0,175	0,159	0,146
U-value WLG 040 W/(m ² * K)	~	0,286	0,250	0,222	0,200	0,182	0,167

Notes: Weight varies due to the possible material combinations
U-values refer only to the insulation core

Technical data / characteristic values Hydewa RP sandwich panel

Fire behavior as a system: E according to DIN EN 13501

Joint cover: Hydewa hps-1c (soft joint sealant)
Hydewa hps-2k (hard joint sealant)
H plastic profile

Sound insulation values: ~ 25dB

European waste code: Glasbord® / FRP 20 01 39 Plastics
EPS (HBCD free) Recycling (incineration))
Sheet steel Recycling metals
Aluminum Recycling metals

The cover layers must be separated and disposed of separately.
If this is not possible, the panel can only be incinerated.

Quality, production tolerances and defects

Hydewa manufactures sandwich panels to a high quality standard.

In accordance with EN 14509, we not only comply with the required limit values, but usually even manufacture with lower tolerances (see table).

Compliance with the parameters is ensured by continuous production control during the ongoing process and by our own final product inspection before packaging.

If the panels deviate, they are immediately readjusted. Deviations from the parameters are therefore possible in individual cases.

However, this is not a defect if the panel as a whole is within the tolerance and the use of the products for the intended purpose is not impaired.

If defects nevertheless occur, we will find an adequate solution in consultation with the customer and the installation company.

It is the responsibility of the installation company to install only flawless elements. If defective elements are installed, claims for reimbursement of expenses for removal and installation will not be recognized.

The quality of ceilings and walls depends not only on dimensional accuracy but also on the quality of the installation.

Dimensional tolerances - continuous production

Panel width (usable width / cover dimension)	1190 mm	+/- 2 mm
Panel length	Nominal dimension	+/- 5 mm
Angularity		+/- 3 mm
Panel thickness (incl. cover layers)		+/- 1 mm
Joint width	5 mm	+/- 1 mm

Dimensional tolerances - Manual production

Panel width (usable width / cover dimension)	Nominal dimension	+/- 3 mm
Panel length	Nominal dimension	+/- 3 mm
Angularity		+/- 3 mm
Panel thickness (incl. cover layers)		+/- 1 mm
Joint width	5 mm	+/- 1 mm

Values at standard climate - 23°C /50% r.h.)

Notes on storage and processing

Sandwich panels should not be stored outdoors in order to protect them from all weather influences such as sunlight (UV radiation). Store with as large a surface as possible.

The processing temperature should be slightly higher than the later application temperature.

Wear gloves and personal protective equipment (PPE) during installation.

The panels can be sawn, drilled and sanded. Care must be taken not to damage the surface during processing.

Open cut edges must be formed in such a way that the panel is not damaged, e.g. by moisture, animal damage or insect infestation. This may require constructive measures, which must be assessed in each individual case. Do not attach any loads to the surface. Fastening according to on-site statics!

Observe the respective installation instructions (available from Hydewa GmbH).

Please note:

We would like to point out that we as a company can only provide a warranty if the material provided by us is also processed with our system components.

The combination of our material and our specific

The combination of our material and our specific components has been carefully tested and found to be safe and reliable (please refer to the system components listed in the installation recommendation).

We can therefore accept no responsibility for any damage or problems resulting from the use of our material in conjunction with other system components that have not been provided or tested by us. We therefore strongly recommend that you use our system components together with our material to ensure optimum ensure optimum performance and safety.

Application

It is used indoors, where not only increased hygiene requirements but also thermal insulation are important. Hydewa sandwich systems are suitable for use in e.g: Production facilities, storage facilities, cold stores, deep-freeze stores, etc.

Color tolerances

The materials used for panel production are all subject to color drift. This is dependent e.g. on age, environmental influences, product influences. This means that even with the same surface, there can sometimes be from batch to batch. Glasbord® has a maximum deviation of 2 Δ E during production.

Production, development and sales

In order to provide you, our customer, with consistently high quality, we are constantly developing and improving our products and our production facilities.

If you have any questions about our products or would like to make suggestions, please contact:

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Certificates



LFGB § 31
indirekter Kontakt mit
Lebensmitteln
für Glasbord Oberflächen



Klassifiziert nach
DIN EN 13501-1

