



TECHNICAL CARD 05/20/XPS 300

DESCRIPTION OF THE PRODUCT

XPS (eXtruded PolyStyrene foam) boards feature very good thermal insulation properties. Combined with excellent insulation, low absorption (closed-cell structure) and high compressive strength, this product is very often used for thermal insulation in construction. HOCH XPS boards have been manufactured in accordance with EN 13164:2012 + A1: 2015 standard. This product does not contain flame retardants. Technical parameters can be found in Table 1.

TECHNICAL SPECIFICATIONS

Table 1. Values of essential characteristics.

| Essential characteristics | | Symbol / Unit | Performance characteristics |
|--|--|---|-----------------------------|
| Thermal resistance and thermal conductivity | Współczynnik przewodzenia ciepła | λ_D [W/mK] | Table 2 |
| | Thermal resistance | R_D [m ² K/W] | Table 2 |
| | Thickness | d_N [mm] | Table 2 |
| Reaction to fire | Class of reaction to fire | Euroclass | F |
| Durability of reaction to fire in a function of heat, weathering, ageing and degradation | Durability characteristics | --- | Does not change |
| Durability of thermal resistance in a function of heat, weather conditions of ageing and degradation | Thermal resistance and heat conduction coefficient | λ_D [W/mK] R_D [m ² K/W] | Table 2 |
| | Durability characteristics | DS(TH) [%] | ≤ (70.90) 5 |
| | | DLT(2)5 [%] | NPD |
| | | Resistance to freezing – defrosting after testing water absorption at diffusion | FTCD |
| | Resistance to freezing – defrosting after testing long lasting water absorption by immersion | FTCI | NPD |
| Compressive strength | Compressive strength at 10% deformation | CS(10/Y) [kPa] | ≥ 300 |
| Tensile strength | Perpendicular tensile strength applied from face surfaces | TR [kPa] | NPD |
| Water permeability | Water absorbability with prolonged submersion | WL(T) [%] | ≤ 0.7 |

* NPD – performance not determined

Table 2. The value of the heat conduction coefficient and thermal resistance for a given board thickness.

| Thickness (Class T1) | Declared thermal conductivity λ_D | Declared thermal resistance R_D |
|----------------------|---|-----------------------------------|
| 30 | | 0.90 |
| 40 | ≤ 0.033 | 1.20 |
| 50 | | 1.50 |
| 60 | | 1.75 |
| 80 | ≤ 0.034 | 2.35 |
| 100 | | 2.75 |
| 120 | ≤ 0.036 | 3.30 |
| 150 | ≤ 0.036 | 4.15 |

PACKAGING

HOCH XPS boards are packed in packages (picking unit; see Table 3) wrapped in foil and then stored on a pallet (loading unit; see Table 4). The overall dimensions of the HOCH XPS boards are shown in Table 5.

Table 3. Packaging data (picking unit).

| Package (picking unit) | | | | |
|--------------------------|-------------------------------------|---|---|--------------------|
| XPS board thickness [mm] | Number of boards in a package [pcs] | Surface area of boards in a package [m ²] | Volume of boards in a package [m ³] | Package height [m] |
| 30 | 14 | 10.5 | 0.315 | 0.42 |
| 40 | 10 | 7.5 | 0.3 | 0.4 |
| 50 | 8 | 6 | 0.3 | 0.4 |
| 60 | 7 | 5.25 | 0.315 | 0.42 |
| 80 | 5 | 3.75 | 0.3 | 0.4 |
| 100 | 4 | 3 | 0.3 | 0.4 |
| 120 | 4 | 3 | 0.36 | 0.48 |
| 140* | 3 | 2.25 | 0.315 | 0.42 |
| 150* | 3 | 2.25 | 0.3375 | 0.45 |
| 160* | 3 | 2.25 | 0.36 | 0.48 |

Table 4. Pallet packing data (loading unit).

| Pallet (loading unit) | | | | | |
|--------------------------|-------------------------------------|------------------------------------|---|--|--------------------------|
| XPS board thickness [mm] | Number of boards in a package [pcs] | Number of boards on a pallet [pcs] | Surface of boards on a pallet [m ²] | Volume of boards on a pallet [m ³] | Height with sleepers [m] |
| 30 | 12 | 168 | 126 | 3.78 | 2.60 |
| 40 | 12 | 120 | 90 | 3.6 | 2.48 |
| 50 | 12 | 96 | 72 | 3.6 | 2.48 |
| 60 | 12 | 84 | 63 | 3.78 | 2.60 |
| 80 | 12 | 60 | 45 | 3.6 | 2.48 |
| 100 | 12 | 48 | 36 | 3.6 | 2.48 |
| 120 | 10 | 40 | 30 | 3.6 | 2.48 |
| 140* | 12 | 36 | 27 | 3.78 | 2.60 |
| 150* | 10 | 30 | 22.5 | 3.375 | 2.33 |
| 160* | 10 | 30 | 22.5 | 3.6 | 2.48 |

* product available only on special order and after confirmation by the customer service department

Table 5. Total dimensions of boards depending on the edge finish.

| Total board dimensions | | |
|------------------------|-------------|------------|
| Edge finishing | Length [mm] | Width [mm] |
| I | 1,250 | 600 |
| L | 1,265 | 615 |
| PW | 1,265 | 615 |

PRODUCT APPLICATION:

Thermal insulation in construction:

- thermal insulation of basement foundations and walls,
- thermal insulation of floors and floorings,
- thermal insulation of building façades,
- thermal insulation of internal walls,
- thermal insulation of pitched roofs and inverted roofs (slab roofs),
- thermal insulation of terraces and balconies.

PRODUCT BENEFITS

The main advantages of XPS boards are:

- very low heat conduction coefficient,
- closed-cell structure, which gives very low absorbability,
- high compression strength,
- ease of assembly of boards,
- full recycling (no waste),
- cellular structure, filled with air, maintains stable thermal insulation parameters over time,
- Polish product.

TRANSPORT AND STORAGE

It is not permitted to transport XPS boards with other materials that may adversely affect mechanical or physico-chemical properties, such as solvents, paints, fuels or other hazardous materials that may move around in the load compartment. It is mandatory to prohibit smoking and usage of open fire in the load compartment where the XPS boards are located.

Extruded polystyrene boards are recommended to be stored in ventilated areas. Do not store XPS boards in one room with flammable or volatile products. This product is degraded under the influence of UV radiation. Contact with open fire must be absolutely avoided.

ASSEMBLY

Solvent-based adhesives in contact with XPS HOCH boards cause undesired effects; eventually, XPS boards are destroyed. Before assembly, check that the adhesive may be used for polystyrene foam. When mounting boards which are exposed to UV radiation, it is recommended to cover them. If you cement the boards, the surface should be rough in order to bind the board to the adhesive better. Application of the product at low temperatures requires that there is sufficient space between boards to maintain proper expansion joint.

RESPONSIBILITY

The information contained in this document is for informational purposes only, therefore the Manufacturer is not responsible for its content. The Manufacturer recommends that transport and storage be carried out in accordance with this document, but the use and application of these products are not controlled by the Manufacturer. The customer is responsible for waste management in accordance with applicable law.

MANUFACTURER

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