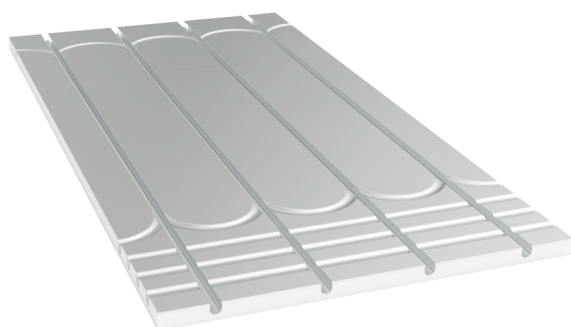


# Data sheet

## EPS ALU FC system board - A element - 1200x600 mm

### Product photo



### Technical drawing

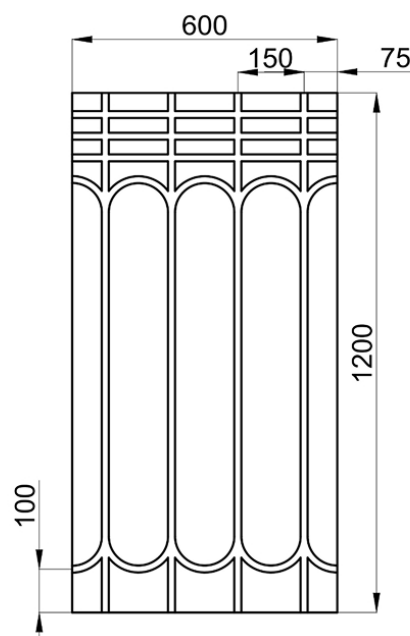


Fig.1. EPS ALU FC system board - A element

### Product description

EPS ALU FC A-element system boards from expanded polystyrene (EPS) with enhanced density and compressive strength are load-bearing element for underfloor heating pipes. The panels are covered with an aluminium layer, which acts as a heat sink, transferring heat from the pipe surface. It distributes the heat evenly across the panel surface to ensure optimal comfort for users. Subsequent layers installed over the system panel depend on the selected floor covering. Additional layers may comprise underlays for floating floors, tension-reducing mats, and adhesive layers bonding the individual system components. The surface of the EPS ALU FC A-element board (with a fixed thickness of 20 mm) allows for easy adaptation of these layers to the specific project, providing high installation flexibility and making it suitable for both new developments and the renovation of existing buildings.

### Where to use?

- Routing underfloor heating pipe loops at equal spacings
- Wherever where screed installation is not feasible
- Underfloor heating installations in timber frame and modular constructions
- Timber and lightweight construction ceilings
- Solutions in renovated projects where screed cannot be applied
- In buildings with low floor build-up requiring lightweight structural solutions

### Key benefits

- Efficient heat distribution through high thermal conductivity aluminium layer
- Lightweight and low-profile construction, ideal for lightweight floor ceilings and renovation projects
- Quick installation time, where the system is fully ready to immediate usage
- Thermal inertia reduced to a minimum, causes faster system response and responsiveness to control
- System panels are manufactured from moulded EPS, ensuring consistent shape, dimensions and physical properties
- Floor coverings can be installed without additional screed layer

### Heating type

Water based dry underfloor heating system (screedless).

### Applicable floor coverings

- Ceramic tiles
- Laminate and engineered wood panels (floating floors)
- Vinyl panels: glued or tongue-and-groove jointed

### Safety and usage

Due to moisture resistance and material durability, the product is resistant to degradation. Precision manufacturing and lightweight construction facilitate rapid installation. To maintain full functionality, it is recommended to follow the manufacturer's installation and operation guidelines detailed in the Dry Construction Underfloor Heating Systems Installation Guide.

#### **Warning! Sharp edges**

The board is laminated with an aluminium layer with sharp edges. Particular care must be taken when handling and working with the boards, and protective gloves must be worn due to the risk of cuts and injuries.



# Data sheet

## EPS ALU FC system board - A element - 1200x600 mm

### Specifications

#### Materials

Material	EPS – expanded polystyrene EPS 400	
EPS density	55 kg/m³ ± 15%	
Compressive strength	d <sub>20</sub> ≤ 400 kPa – CS(10)400	PN-EN 13163+A1:2015-03
Thermal conductivity (λ <sub>p</sub> )	λ <sub>20</sub> ≥ 0,0333 W/(mK)	PN-EN 13163+A1:2015-03
Thermal resistance – R <sub>p</sub>	R <sub>20</sub> = 0,624 m²K/W	
Reaction to fire	PN EN13501-1: E	PN-EN 13501-1:2019-02
Thickness of aluminum foil used	100 µm	

#### Dimensions

L / W (mm)	1200 mm x 600 mm; ± 1%
H (mm)	20 mm; ± 2%
Pipe distance	150 mm
Pipe diameter	ø 16 mm

#### Available configurations

#### Pallet

Product ID	Pipe distance (mm)	Material	Aluminium thickness (µm)	Type	Product dimensions L / W / H (mm)	Net weight (g)	Pcs	Pallet dimensions L / W / H (cm)	Gross weight (kg)
F-069583/FC1 UK	150	EPS400	100	A-element	1200 x 600 x 20	1002	200	120 x 120 x 220	220.4

#### Storage

Boards must be stored in dry, covered areas on level ground, avoiding prolonged loading of lower pallet layers which could lead to deformation. The product should be protected from direct UV radiation, moisture and high temperatures, as these may affect its physicochemical properties. Storage temperatures should not exceed the limiting temperatures of -5°C and +85°C.

The panel is laminated with aluminium foil. When aluminium is in contact with air, it develops a thin layer of aluminium oxide (Al<sub>2</sub>O<sub>3</sub>) that acts as a natural protective coating. This prevents further oxidation of the metal. Any discolouration is a natural reaction of the material.

#### Logistics

During transport, EPS ALU FC A-element board should be stacked on stable pallets and secured with stretch film using corner protectors to protect panel edges, or cardboard casing, to prevent mechanical damage. Pallets should be transported in a single tier.

#### Utilisation

Waste from EPS ALU FC A-element board, manufactured from expanded polystyrene (EPS) and aluminium foil, should be segregated as construction waste and, where possible, subjected to recycling. Both EPS and aluminium are suitable for reprocessing, therefore it is recommended to deliver them to selective waste collection points or companies specialising in recycling these materials. Incineration of waste and disposal in municipal waste should be avoided to minimise negative environmental impact. In case of doubt, it is recommended to familiarise oneself with local waste management regulations and procedures for handling multi-layer materials.