

CROSSIN FRONT SYSTEM

DESCRIPTION Crossin® Front System is a modern system of thermal insulation of walls, based on rigid polyurethane panels used to insulate double-layer walls in the ETICS technology. The basis of the Crossin® Front consists of PUR panels.

COMPOSITION The Crossin® system consists of the Crossin® ST04 joint-adhesive mortar, the TPD PUR façade insulation panel, mechanical fasteners (in accordance with the ETA), a fibreglass mesh, the Crossin® Front A Grunt (or Armasil GT/Novalit GT) primer, the Crossin® Front A (or Armasil T/Novalit T) silicon plaster.

FUNCTION Insulation of double-layered external walls in the ETICS technology.

INFORMATION DATA **PARAMETERS OF THE CROSSIN FRONT SYSTEM ELEMENTS AND THEIR ASSUMED PERFORMANCE.**

Crossin® TPD PUR polyurethane (PUR) insulation panels with a thickness of 20 to 200 mm and dimensions 1000x600 mm. The panels are characterised by a water vapour diffusion resistance factor at the level of MU(20), long-term water absorption after complete immersion of 3%, and compressive strength CS (10/Y) of 150 kPa. Density: $35 \pm 5 \text{ kg/m}^3$. 100% of panels have no lining and do not require special storage conditions. Closed cells content: min. 90%.

Crossin® Front ST04 mineral joint-adhesive mortar based on Portland cement with polyurethane fillers (intended for fixing panels to the base surface, as well as for creating a reinforcing grid and embedding a reinforcing mesh). For use on all typical mineral base surfaces, as well as on base surfaces covered with a well-bonded exterior coating or a thin-coat plaster. Adhesion to the Crossin® TPD-PUR 30/40 polyurethane panels min. 0.08 MPa; adhesion to concrete $\geq 0.25 \text{ MPa}$; compressive strength $\geq 3.5 \text{ MPa}$. Water vapour diffusion resistance factor $\mu \leq 20$; Thermal conductivity coefficient $\lambda \leq 0,57 \text{ W/(m}\cdot\text{K)}$. Colour – grey. Bulk density of dry mortar: 1150 kg/m^3 . Mortar consumption: panel fixing – from 4 to 5.5 kg/m^2 , mesh embedding – 4.6 kg/m^2 . Packaging: 25 kg bag.

Mechanical fasteners in accordance with the approval. The types of fasteners and their length should be adjusted to the type of the base surface, the thickness of the Crossin® Front system thermal insulation layer, the height of the building, and the static loads present. This information should be included in the project documentation.

Crossin® Front A Grunt primer for silicon plaster masses based on an acrylic dispersion with the addition of silicon hydrophobic agents, intended for proper preparation of a base surface for the Crossin® Front A silicon plaster mass. For use on both: strong and even mineral base surfaces, as well as on base surfaces covered with a well-bonded plastics-based paint coating. Density – approx. 1.3 g/cm^3 . Solid content – min. 44%, average consumption – approx. 0.20 l/m^2 (depending on the absorbency of the base surface). Packaging: 10 l bucket. The Armasil GT or Novalit GT primers can also be used with the system.

Crossin® Front A silicon plaster mass. The mass is intended for manual creation of dirt-resistant, thin-layer external plaster coatings on buildings, and finishing layers in the Crossin® Front thermal insulation system. For use on both: mineral base surfaces, as well as on base surfaces covered with a well-bonded plastics-based paint coating. Water vapour permeability $S_d=0.30 \text{ m}$ (cat. V2), water absorption $w=0.09 \text{ kg/m}^2 \cdot \text{h}^{0.5}$ (cat. W2). Consumption: 2.3 kg/m^2 (for fleecy texture - 1.5 mm); 3.0 kg/m^2 (for fleecy texture – 2.0 mm) Before applying the plaster mass, the base surface needs to be primed with the Crossin® Front A primer. Packaging: 25 l bucket. The Armasil T and Novalit T plaster can also be used with the system.

Fibreglass reinforcing mesh – VERTEX R 117 A 101 density 145 g/m^2 , mesh size $4.0 \times 4.5 \text{ mm}$ (+/- 0.5 mm) or VERTEX R 131 A 101 density 160 g/m^2 , mesh size $3.5 \times 3.8 \text{ mm}$ (+/- 0.5 mm). Consumption: $1.1\text{--}1.2 \text{ m}^2/\text{m}^2$. 50 linear metres roll (55 m^2).

APPLICATION

The Crossin® Front system is recommended for thermal insulation of façades of residential and office buildings, industrial and commercial facilities, as well as utility rooms. A perfect solution for both: newly erected buildings, and those subject to thermo-modernisation.