

## KNAUF Therm ETIXX Facade $\lambda$ 31



KNAUF Therm ETIXX Facade  $\lambda$  31 polystyrene panels are designated by the following code according to PN-EN Standard EN 13163:2012+A1:2015

**EPS EN 13163 T(2)-L(2)-W(2)-S(5)-P(5)-BS100-DS(N)5-DS(70,-)2-TR100**

KNAUF Therm ETIXX Facade  $\lambda$  31 polystyrene panels are formed in a press from expanded polystyrene with the addition of rich raw material. The enriched composition of graphite added to polystyrene improves insulating properties, thanks to which better thermal insulation effects are achieved at lower panel thicknesses. Panels have flat finished edges.

### PURPOSE

- exterior thermal insulation made using ETICS the "light wet" method
- exterior thermal insulation made using the "light dry" method
- Thermal insulation:
  - on skeleton wall surface
  - in closed gap of tri-layer wall
  - in ventilated gap of tri-layer wall
  - of balcony loggias
  - of tie beams, window reveals and lintels

### BASIC ADVANTAGES OF KNAUF THERM ETIXX FACADE $\lambda$ 31

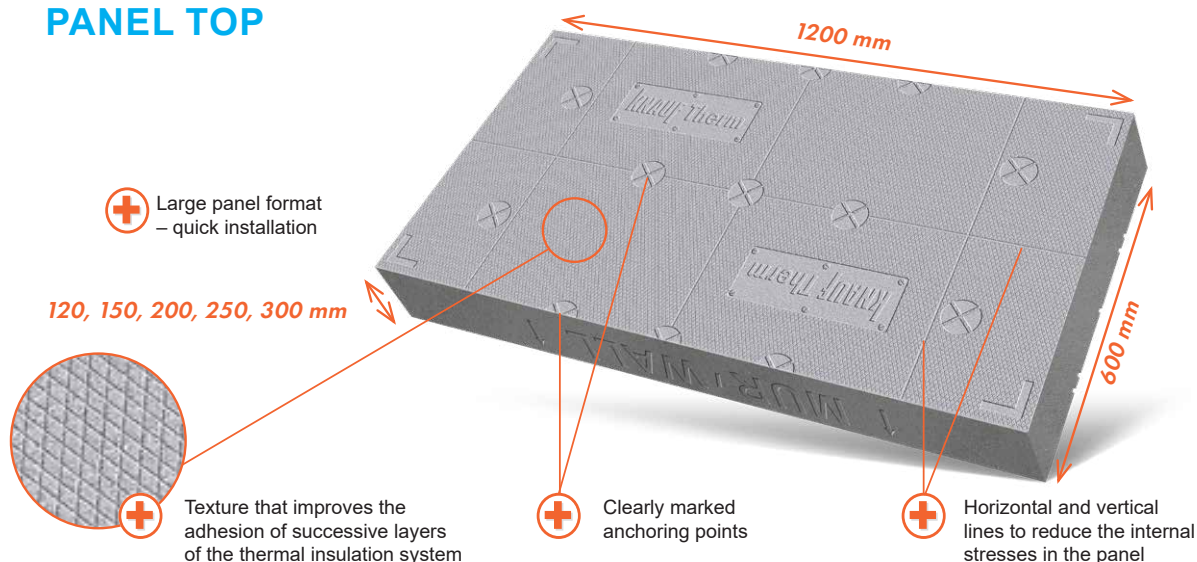
Approx. 30% lower panel thickness in comparison to white polystyrene (possibility of using panel on balconies and loggias without significant losses of residential space)

- greater or equal thermal insulating power of panel at lower thickness in comparison to white polystyrene panels
- expanded polystyrene with graphite particles for outstanding insulation performance (low thermal conductivity  $\lambda = 0,031\text{W/mK}$ )
- the pressing technology ensures high dimensional stability the panel has straight edges and a flat surface
- large panel dimensions: 1200 x 600 mm – 20% greater than the dimensions of a Standard polystyrene panel
- ETIXX panel is branded with Knauf Therm logo

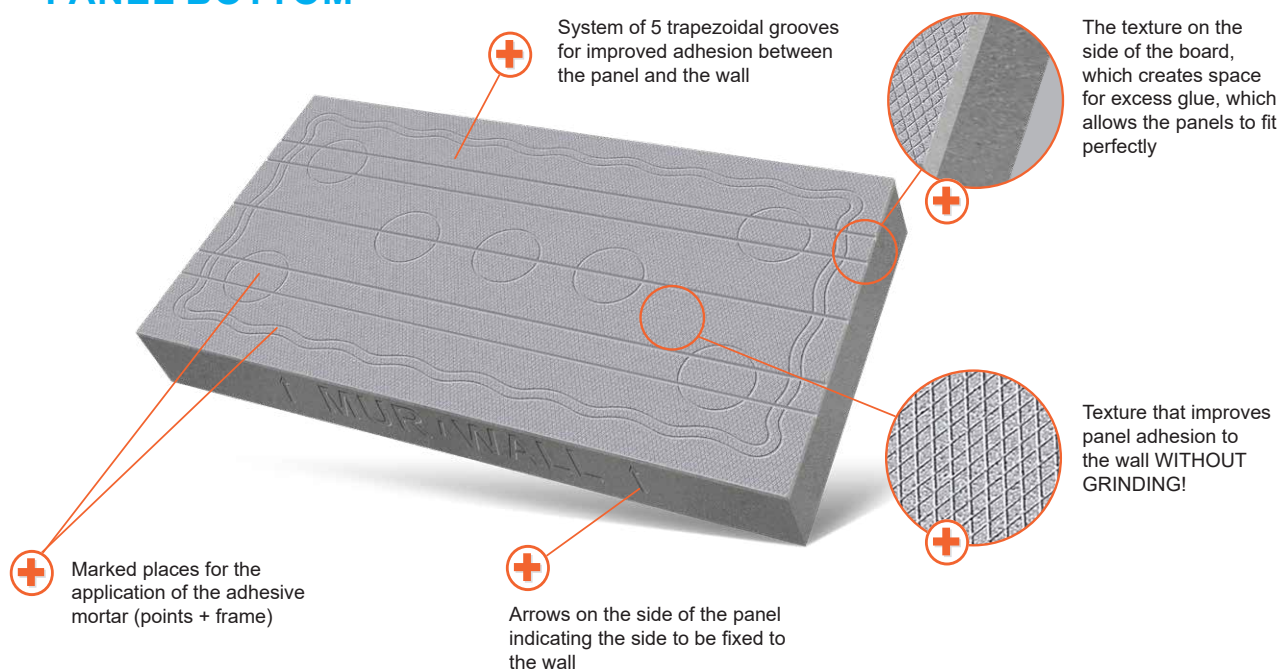
## PATENTED PANEL DESIGN

The design of the panel is protected by a EUROPEAN PATENT

### PANEL TOP



### PANEL BOTTOM

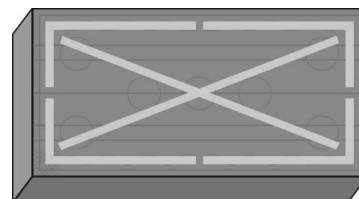
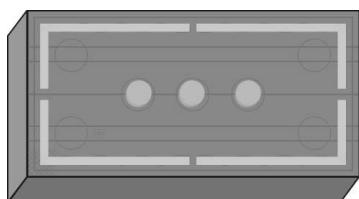


## GUIDELINES FOR FASTENING KNAUF THERM ETIXX FACADE $\lambda$ 31

Before commencing installation of KNAUF Therm EXPERT Facade  $\lambda$  31 panels, check the condition of the substrate. The substrate must be load-bearing, clean and degreased. Loose fragments poorly bound to the substrate should be removed before gluing polystyrene panels. Install the panel in accordance with the direction indicated by the arrow on its side. KNAUF Therm ETIXX facade  $\lambda$  31 should be glued with universal fiber-reinforced adhesive, e.g., KNAUF FIBER-REINFORCED ADHESIVE or Knauf Therm Expert polyurethane adhesive.

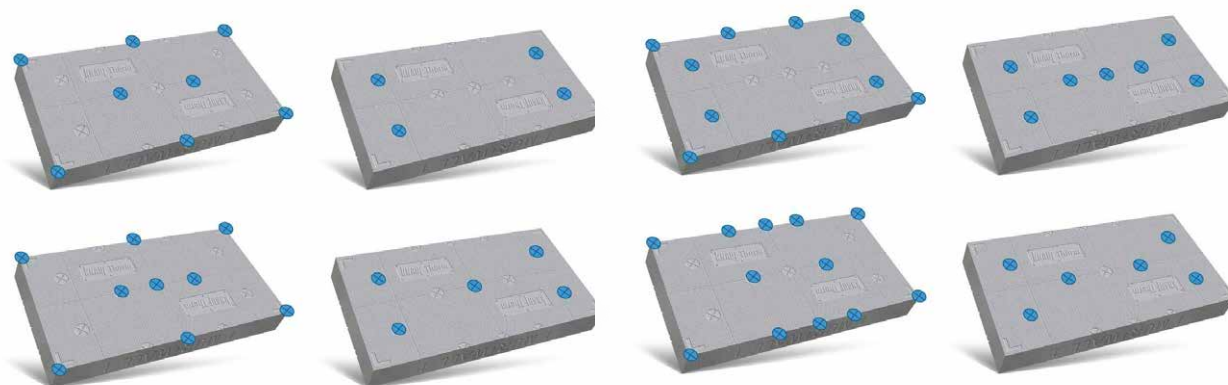
After the panel is pressed to the wall, the gluing area should not be smaller than 40%. Adhesive cements should be applied along the perimeter and in specific points. The bottom side of the panel has indicated glue application points (points and frame).

For polyurethane adhesive, the gluing diagram is as follows:



In addition to adhesives, KNAUF Therm ETIXX façade  $\lambda$  31 panels should be fixed with mechanical fasteners with a metal or plastic pin. The minimum number of fasteners should be 4 pcs./m<sup>2</sup>. The places for the installation of mechanical fasteners are marked on the top side of the panel. Proposed anchor installation points are depicted in the pictures below:

## ANCHORING DIAGRAM



## GUIDELINES FOR FASTENING KNAUF THERM ETIXX FACADE $\lambda$ 31 PANELS: UV PROTECTION

KNAUF Therm ETIXX façade  $\lambda$  31 graphite polystyrene has elevated resistance to UV radiation, however long-term, direct exposure to UV radiation may cause a yellowish tarnish on a panel's surface. This tarnish must be removed before execution of the reinforcing layer.

It is recommended to use KNAUF FIBER-REINFORCED GLUE and KNAUF REINFORCING MESH to make the reinforced layer.

Shielding facade meshes should be used during work. KNAUF Therm ETIXX façade  $\lambda$  31 panels glued to the facade are to be protected against the direct action of sunlight and weather conditions by using facade meshes on scaffolding.

## ATTENTION

Protect panels against direct contact with substances damaging polystyrene, e.g. organic solvents (acetone, nitroglycerin, benzene, etc.)

## TECHNICAL DATA

$\lambda_D$ Thermal conductivity coefficient W/(mK)	$\leq 0.031$
Edge shape	rectangular
Dimensions	1200 x 600 mm
Self-extinguishing capacity	SELF-EXTINGUISHING
Class of reaction to fire	E
Bending strength (kPa)	BS 100 ( $\geq 100$ )
Tensile strength (force applied perpendicularly to face surfaces) [kPa]	TR 100 ( $\geq 100$ )

## PACKAGING, STORAGE, TRANSPORT

KNAUF Therm EXPERT Facade  $\lambda$  31 polystyrene panels are solely delivered in the manufacturer's, original packaging. A product's packaging contains information concerning: product name, name of manufacturer, production date, European Standard no. EN 13163:2012+A1:2015, code according to standard, and declared technical parameters.

KNAUF Therm EXPERT Facade  $\lambda$  31 should be stored in a manner that protects them against mechanical damage and the weather conditions.

Panel thickness [mm]	120	150	200	250	300
Number of panels per package	5	4	3	2	2
Thermal resistance [m <sup>2</sup> K/W]	3,75	4,65	6,25	7,80	9,35
Package volume [m <sup>3</sup> ]	0,432	0,432	0,432	0,360	0,432
Covered area [m <sup>2</sup> ]	3,6	2,88	2,16	1,44	1,44