

# APPLICATION AND TECHNICAL SPECIFICATION FOR BRICK SLIP PANEL SYSTEM ON CHanneled XPS

## MATERIAL INFORMATION:

### Grooved XPS Panel System Materials:

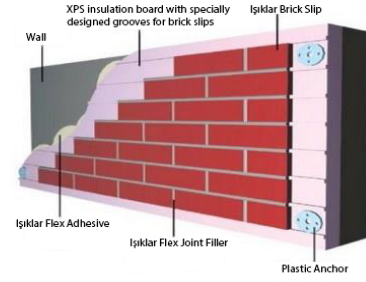
**Brick Slips:** Işıklar Brick or equivalent

**XPS Insulation Board**

**Plastic Anchors**

**Flex Adhesive**

**Flex Joint Filler**



### Areas of Use:

Used for façade renovations of existing buildings and on the exterior surfaces of new buildings. Applicable on reinforced concrete shear walls, aerated concrete (AAC), pumice blocks, bricks, and the outer surfaces of structural elements such as columns and beams.

The material must be carefully unloaded at the application site using a forklift or crane, and stacked neatly and securely.

On-site transport should be performed carefully using manual handling or hand trolleys, and the material must be protected from damage during handling.

In the storage area, materials must be protected from external elements such as rain and moisture.

### Brick Slip Technical Properties:

It is a factory-produced brick, fired up to the sintering point, with high unit weight and frost resistance.

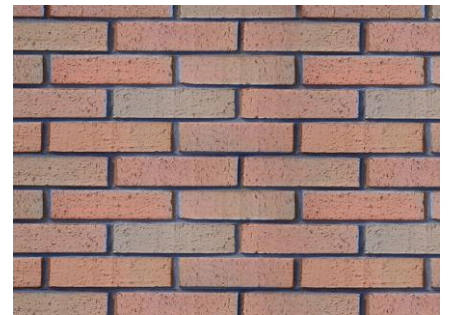
1. DIMENSIONS	215×65×15 mm.
2. SAMPLE DESCRIPTION	Clay-based, smooth, textured, vertical wall surface cladding.
3. WATER ABSORPTION TEST (Boiling Method)	GRADIENT SERIES AVERAGE MAX. 4% OTHER COLOR SERIES AVERAGE MAX. 7%
4. DIMENSIONS AND TOLERANCES	(TS EN 771-1 Clause 5.3.7.2) (Length ±4.3 mm, Width ±1.3 mm)
5. FLEXURE COEFFICIENT	(TS EN 1304:2007 Clause 4.3.2) AVERAGE 0.49%
6. LONGITUDINAL AND TRANSVERSE WARPING	(TS EN 1304 April 2007 Clause 4.3.2.1) Longitudinal: 2.0 mm, Transverse: 1.0 mm (Table 3)
7. WATER TIGHTNESS	(TS EN 1304 April 2007 Clause 4.3.2.1) TS EN 539-1 Method-1 Max: 0.5 cm <sup>3</sup> /cm <sup>2</sup> /day
8. REACTION TO FIRE	(TS EN 1304 April 2007 Clause 4.4.1) TS EN 1304 April 2007 Clause 4.5.2.2) A1 Max.: 0.713
9. FROST RESISTANCE	Test Method: A (12 Cycles: -15°C + 12 Cycles: -5°C) (TS EN 539-2)
10. FLEXURAL STRENGTH	FOR FLAT TILES: 600 N (TS EN 538)

Note 1: These values represent the minimum required standards; however, the authority reserves the right to demand higher performance levels. For each material batch, the authority may, at its discretion, require testing on samples by an authorized institution to verify compliance with technical specifications. In case of non-compliance, the authority reserves the right to reject the material or cancel the associated work.

Note 2 : Kaplama Tuğla, ön yüzeyi düz/tel kesme/rustik olup, arka yüzünde ise kaplama  
The front face of the brick slip may be smooth, wire-cut, or rustic, while the back face must include vertical grooves to ensure proper adhesion to XPS or wall surfaces.

The brick slip must not contain chamotte, kaolin, or any other inorganic ceramic raw materials. It must be composed exclusively of clay.

Note 3: Corner bricks shall be used at building corners and returns.



REFERENCE IMAGE  
ALTERNATIVE COLOR SHALL BE DETERMINED BY THE  
AUTHORITY

## TECHNICAL PROPERTIES OF XPS THERMAL INSULATION BOARDS

600 × 1250 × 35 mm – 600 × 1250 × 55 mm – 600 × 1250 × 80 mm

Thermal Conductivity Value	TS 11989	0.037 W/m·K (value after 90 days at 10°C)
Fire Resistance	TS 11989	B1 (Stuttgart FMPI Institute)
Density	TS 11989	Minimum 24 kg/m <sup>3</sup>
Dimensional Stability	TS 11989	Environmental condition 1: 0% at (60 ± 2)°C
Compressive Strength Under Specified Load And Temperature Conditions	TS 11989	Environmental condition 2: 1% at (60 ± 2)°C (relative humidity) Class A1 and A2
Long-Term Water Absorption By Diffusion	TS 11989	200 kPa, Class C2 (minimum at 10% deformation)
Long-Term Water Absorption By Total Immersion	TS 11989	Class W0 Class WI 1
Freeze–Thaw Resistance	TS 11989	Class WF0 +75°C
Max. Service Temperature		90–110
Water Vapor Diffusion Resistance Factor		
Linear Thermal Expansion Coefficient		0.07 mm/m·K
Capillarity		None
Dimensions		Length: 1250 mm, Width: 600 mm Thickness: 35, 55, and 80 mm
Surface Characteristics		Rough
Edge Profile		Shiplap

### Technical Properties of Flex Joint Filler and Flex Adhesive:

Property	<u>Flex Joint Filler</u>	<u>Flex Adhesive</u>
Property	Cement-Based, Polymer-Modified Wide Joint Filler	Cement-based, polymer-modified flexible adhesive
Color	Gray, Beige, Brown, Black, and Red	
Application Temperature	Applied at temperatures between +5°C and +35°C.	
Shelf Life	In original packaging: 6 months	In original packaging: 6 months
Workability Time	Approximately 35–40 minutes	Approximately 30–35 minutes
Packaging Type	Kraft bag	Kraft bag
Consumption	4–5 kg/m <sup>2</sup>	5–6 kg/m <sup>2</sup>

### SURFACE PREPARATION:

\* The Grooved Panel System can be applied on all surfaces with a rigid and stable structure, such as reinforced concrete shear walls, columns, beams, hollow bricks, solid bricks, aerated concrete, rough plaster, and rendered walls.

\* Any surface contaminants such as paint, insulation residues, burrs, mortar crumbs, oil, dust, or weak/non-adherent plaster layers that may impair adhesion must be removed. For rough and uneven surfaces, such materials must be scraped off; if not possible, the surface should be corrected with a new plaster layer.

\* The building façade must be level and plumb. It should first be checked using string and plumb line; any irregularities must be identified and resolved before starting the application.

\* If the wall to be coated is damp, both the body and the surface of the wall must be thoroughly dried.

### PANEL SYSTEM APPLICATION:

In the application of the system, Flex Adhesive and Flex Joint Filler, specially produced for exterior façades and compatible with the technical properties of the brick slips, are used.

\* The surface is prepared in accordance with the principles outlined above.

\* A reference point is marked on the façade, and elevation levels are transferred to other parts of the façade using a water level or laser level.

\* After identifying the starting point and elevation levels, the insulation band (pestil) to be applied at least 20 cm above the base elevation is checked and fixed in place using an aluminum guide aligned with a spirit level.

\* Flex Adhesive is prepared in accordance with its application guidelines.

\* The adhesive is applied along the edges of the back surface of the XPS insulation board and in patches at the center. If the surface to be applied is flat and even, the adhesive may be spread fully over the back of the board and notched using a trowel.

\* The insulation boards are placed side by side, starting from the bottom and moving upward, by fitting them into the starter profile. They are pressed firmly using a straightedge to ensure full adhesion to the surface. The entire surface is checked for flatness with the help of a straightedge, and horizontal alignment is verified with a level. Full boards should be placed at façade corners, while cut pieces should be left in the middle sections. The boards must be cleanly cut using a utility knife, and joints should be properly aligned. Avoid using very small pieces.

\* At least 24 hours after the adhesive application, each insulation board is fixed using 5 plastic insulation anchors. In critical areas or swollen sections, additional anchors should be used as needed.

\* Each brick slip is applied by spreading a small amount of adhesive on its back surface and placing it into the grooves on the insulation board. In harsh weather conditions, adhesive may also be applied inside the grooves. Brick slips are installed vertically with 1 cm joint spacing. Horizontal joints are already formed by the board channels.

\* After completing the bottom row, upper rows are applied. Care must be taken to ensure that horizontal and vertical joints remain level and plumb. Vertical alignment should be checked every 2–3 meters and especially at all corner transitions using plumb lines and cords. Horizontal alignment should be verified periodically using a level.

\* At corners and locations requiring cuts, bricks should be neatly trimmed using an angle grinder. Corner bricks must be used at building corners and around window and door openings.

\* Once the Flex Adhesive has dried (minimum 24 hours), joint filling can be performed.

#### **JOINT FILLING APPLICATION:**

\* Flex Joint Filler should be prepared in accordance with the manufacturer's instructions.

\* The joint filler to be used for brick slips must be applied with a minimum joint width of 10 mm.

\* Flex Joint Filler must be applied using a joint gun, without smearing it onto the brick surface.

\* Once the Flex Joint Filler has dried to the point where it no longer sticks to the hand, it should be shaped using a jointing tool. Joint filling should not be carried out in humid or rainy weather conditions. To avoid color tone differences, it is important to complete any façade surface started on the same day.

#### **SURFACE CLEANING:**

Any Flex Adhesive, Flex Joint Filler, or mortar residue that comes into contact with the surface during application should not be cleaned while wet. Cleaning should be performed after drying, using a stiff plastic brush. For heavily soiled surfaces, cleaning should be carried out using Işıklar Surface Cleaner.