

1. PURPOSE AND SCOPE

This specification defines the technical application principles for the IŞIKLAR TERMOBRICK external thermal insulation system with brick-slip finish, including substrate preparation, bonding, insulation, reinforcement layer, mechanical fixing, brick-slip installation, jointing, corner and termination details, and expansion-joint solutions.

2. SYSTEM COMPONENTS

1. Base render
2. Işıklar Thermal Insulation Board Adhesive
3. Rock wool, 80 mm - 150 kg/m³
4. 200 mm steel anchor (6 pcs/m²)
5. 320 g/m² glass-fibre reinforcing mesh or expanded metal lath + Işıklar Thermal Insulation Board Basecoat Mortar
6. Işıklar Thermal Insulation Render + levelling render
7. **200 mm steel anchor (10 pcs/m²) - below the levelling render**
8. Işıklar Brick Slip Flex Adhesive Mortar
9. Işıklar Brick Slip
10. Işıklar Flex Joint Filler
11. Işıklar KT/2 Corner Brick Slip
12. Silicone sealant
13. Expansion-joint profile
14. Sealing tape
15. Steel support + YSB screw (for copings and special details)

3. SUBSTRATE REQUIREMENTS

- The application substrate must be sound, clean, dry and load-bearing.
- Loose render, blistered areas and weak surfaces must be removed.
- The base-render surface must be even, within a tolerance of $\pm 3-4$ mm.
- The substrate moisture content must be **below 5%**.
- The application temperature must be between **+5°C and +30°C**.

4. ROCK-WOOL BONDING

4.1 Preparation of the Adhesive

- Mix the Isiklar adhesive mortar with clean water at low speed.
- Allow the homogeneous mixture to rest for 5 minutes.

4.2 Rock-Wool Installation

- Apply adhesive to the rock-wool boards as a perimeter strip and three central dabs.
- Install the boards in a staggered pattern.
- Do not leave gaps between the boards; fill any gaps with rock-wool offcuts.

5. FIRST MECHANICAL FIXING (6 PCS/m²)

- Carry out the fixing approximately 24 hours after bonding.
- Use a minimum of **6 steel anchors/m²**.
- Provide a minimum anchorage depth of **40-50 mm** into the load-bearing substrate.
- Position the anchors at the joints between the rock-wool boards.

6. REINFORCEMENT LAYER (MESH + BASECOAT)

6.1 Application of Mesh or Expanded Metal Lath

- Apply the 320 g/m² glass-fibre mesh taut across the surface.
- Expanded metal lath may be used as an alternative.
- Mesh overlaps must be **10 cm**.

6.2 Reinforcement Basecoat

- After placing the mesh, apply Isiklar Thermal Insulation Board Basecoat Mortar.
- Cover the entire surface to obtain an even layer.
- The layer thickness must be **3-5 mm**.

7. LEVELLING RENDER AND SECOND ANCHOR APPLICATION

7.1 Levelling Render

- After the reinforcement basecoat has dried, apply the Isiklar levelling render.
- Create an even surface suitable for brick-slip installation.

7.2 Second Anchoring (BELOW THE LEVELLING RENDER)

- **Install the second set of anchors so that they are positioned BELOW the levelling render.**
- Use **10 anchors/m²**.

- This layer strengthens the system against impact and wind loads.

Note: In this version of the specification, the wording has been corrected at the user's request from "above the levelling render" to "below the levelling render."

8. BRICK-SLIP INSTALLATION

8.1 Flex Adhesive Mortar

- Comb the mortar onto the surface using a suitable notched trowel.

8.2 Brick Placement

- Start the first course level.
 - Press the bricks firmly onto the surface.
 - The joint width must be **8-12 mm**.
 - Use KT/2 corner bricks at external corners.
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9. JOINT FILLING

- Carry out joint filling 24 hours after brick installation.
 - Fill the joints completely using Işıklar Flex Joint Mortar.
 - Remove mortar residue from the surface before it dries.
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10. EXPANSION AND MOVEMENT JOINTS

- Do not cover existing expansion joints in the building.
 - Use an expansion-joint profile, sealing tape and silicone sealant in these areas.
 - Cut and separate the bricks along the expansion-joint line.
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11. CORNER, COPING AND GROUND DETAILS

11.1 Corner Detail

- Use KT/2 corner bricks.
- Wrap the mesh and render around corners in an L-shape.

11.2 Coping Detail

- Provide a minimum slope of 2% to direct water away from the façade.
- Use silicone sealant and sealing tape at the lower junctions.
- If required, install a steel support + YSB screw.

11.3 Ground-Pavement Detail

- Leave a minimum **10 mm** gap between the cladding and the ground.
 - Seal splash zones with sealant to ensure watertightness.
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12. APPLICATION CONDITIONS

- The air temperature must be between **+5°C and +30°C**.
 - Do not carry out application during frost, rain, intense sunlight or high winds.
 - Keep all materials in their original packaging.
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13. QUALITY CONTROL AND HANDOVER

- Verify anchor quantities on site by counting.
- Check brick alignment using string lines.
- Joints must contain no voids.
- The reinforcing mesh must not be exposed at the surface.
- Clean the surface and hand over the completed system.