

EXPOSED WATERPROOFING OF ROOFS THAT ARE OCCASIONALLY WALKABLE WITH ACRYLIC SYSTEMS

Waterproofing of balconies, slabs and roofs

APPLICATION DATA SHEET

Exposed waterproofing of roofs that are occasionally walkable with acrylic systems by:

1. Cleaning of the substrate;
2. preliminary checks.
3. Check and restoration of joints and connecting gutters
4. Waterproofing
5. completion of operations

1) CLEANING OF THE SUBSTRATE

The cleaning operations are aimed at the total elimination of inconsistent parts, which are detached and not equipped with sufficient mechanical characteristics, dust, grease, rust, release agents, paint and varnish, cement slurry and any other substance or material that may affect the adherence of subsequent coatings.

2) PRELIMINARY CHECKS

In the case of structures not intended for permanent contact with liquids (balconies, terraces and coverings), check:

- the correctness of the slopes (if appropriate, perform interventions aimed at correcting them);
- the presence and adequacy of floor water collection systems (which should be equipped with adequate leaf protection systems) and the suitability of the devices used to guarantee the disposal of water (if the balcony or terrace is bounded by walls, make through holes and place special drip bars);
- the absence of elements that could hinder the continuity of the subsequent waterproofing (which must be adequately turned up on the walls and / or perimeter walls), proceeding with the removal and / or lifting from the ground of each machine (splitters and other plant elements) and non-structural element (any metal flashings,

skirting boards etc.).

In the case of concrete substrates:

- Ensure that they are properly cured and structurally sound (the pull-off tensile strength of the concrete must be > 1.5 MPa).
- Check the presence and depth of any cortical degradation and proceed with an adequate restoring cycle.
- Any deep and extensive irregularities (segregation in concrete, overflow between the pourings, excessive roughness of not properly floated bottoms, etc.) must be previously skimmed.
- In the case of waterproofing newly constructed screeds and / or laid on old membranes, between 8 and 24 hours before the start of the waterproofing, proceed with priming by brush or roller with Kimicover FIX MV (consumption of 0.2 - 0.4 Kg / sqm) of the entire surface to be treated.

In the presence of bituminous membrane, it must be evaluated from time to time whether to proceed:

- with the removal of the membrane (this is convenient if the majority of the existing membrane has deteriorated);
- with localized restoration of the membrane.

If you decide to leave the membrane: check the correct adherence of the membrane; attaching to the substrate through heat treatment the non-degraded detached parts; remove any excessively deteriorated portion and place a new membrane to seal the missing / removed parts; any protective coating, if of an acrylic nature, well adherent and not flaky, may not be removed, in all other cases (reflective and / or deteriorated paints) will be removed with suitable techniques (mechanical / chemical or thermal treatments: consult the Technical Data Sheets of the materials used); acid wash the entire surface with Solution P.

In the case of waterproofing of already tiled surfaces:

- remove the first row of wall tiles to a height of about 20 cm;
- check the adherence of the tiles to the bottom;
- repair any holes or irregularities in the substrate with suitable Kimia products;
- acid wash the surface with Solution P with suitable manual or mechanized technique.

3) CHECK AND RESTORATION OF JOINTS AND CONNECTING GUTTERS

If, in the construction phase of the structure, an adequate network of static (connection and fraction) and dynamic (expansion, seismic) artificial joints, properly reported in any overlying coatings (screeds, flooring), has been created, proceed, if necessary, to restore the edges and / or replace any preformed system already applied in correspondence with the joints, if they are damaged.

In the case of natural joints, formed due to incorrect sizing / non-construction of joints:

- if they have a straight or pseudo-rectilinear course, open them with flex to guarantee a width of at least 5 mm;
- in case of widespread and irregular cracks, consult the Technical Office.

In the case of tiled substrates without joints but big enough to necessitate them, it will be advisable to recreate the joints (making an incision with the grinder in correspondence of the grout lines):

- carefully checking any damage to the coating;
- making the joints on the areas that, depending on the roof frame, could tend to behave as dynamic joints.

The joints will be waterproofed by:

- placement of the closed cell polyethylene substrate Ethafoam as a foundation for the polyurethane sealant Tecnoseal 88 or Tecnoseal 130 in the case of joints larger than 5 mm;
- application of Kimicover JOINT and laying of the reinforcement mesh Kimitech 120 to be saturated with Kimicover 501.

The contact points between the screed and the collection gutters should be treated by applying Kimicover JOINT P, turned up inside the drain.

On the self-adhesive membrane proceed with the laying of the reinforcement mesh Kimitech 120 to be saturated

with the chosen mortar or resin for the subsequent overall waterproofing of the surface.

The contact points between the screed and the collection gutters should be treated by applying Kimicover JOINT P, turned up inside the drain.

On the self-adhesive membrane proceed with the laying of the reinforcement mesh Kimitech 120 to be saturated with Kimicover 501.

The joints between the wall and the floor will be waterproofed by applying Kimicover JOINT and applying Kimicover 501 reinforced with Kimitech 120 mesh.

4) WATERPROOFING

On the clean and mechanically consistent surface to be waterproofed, apply Kimicover FIX MV primer.

Proceed with the application of Kimicover 501 acrylic elastomer-based resin with a consumption of approximately 1 kg/m², taking care to completely drown the Kimitech TNT reinforcement fabric.

After 12 hours, apply with a brush, roller or low-pressure spray gun (in case of applications with airless pump, the product can be diluted with 10% of water) a second layer of Kimicover 501, with a consumption of at least 1,5 kg/m².

5) COMPLETION OF OPERATIONS

When a "cool-roof" finishing is required, it is possible to complete the waterproofing with a layer of Kimicover BLINDO in the high reflective variant.

NOTE

Provide for water vapor vent chimneys appropriately displaced according to the humidity present in the substrate.

After evaluating the thermohygrometric conditions of the environment below the covering, apply an aerator:

- every 40 m² for environments characterized by low humidity and the presence of special layers of vapor diffusion;
- every 20 -25 m² for environments with average humidity;
- every 15 m² for environments with high humidity (swimming pools, environments which underwent special procedures, etc.).

Kimicover 501 is not suitable for permanent contact with water.

Do not use the product in case of drains or stagnant water areas.

Do not apply Kimicover 501 on substrates with rising damp.

Bituminous materials rich in volatile substances can stain and soften the coating of Kimicover 501.

POSSIBLE ALTERNATIVES

As an alternative to Kimitech TNT it is possible to use:
Kimitech 120, elastic polypropylene reinforcement mesh.