

General Application Advice

Oxal - horizontal barrier and restoration render system

Handling Information

Planning

Previous to every refurbishment, an exact building- and damage analysis is mandatory. Afterwards, the different options of refurbishment have to be discussed.

A) Horizontal Barrier

Preparation

Drilling of injection channels - placing of packers

The drilling of injection channels for one-sided arrangement has to be in two rows; for double-sided arrangement, single row drilling is sufficient. The borehole diameter has to be chosen according to the packer size (12 - 20 mm). The boreholes are distributed in a distance of 10 - 12 cm at the injected area. The drilling angle should be approx. 30 - 45° and at least one horizontal joint has to be crossed. Every borehole should end approx. 5 cm before the wall is ending. Do not go beyond a height offset of 8 cm. Dust from drilling needs to be removed from the injection channels with an industrial vacuum cleaner or blown out with a lance utilizing oil-free compressed air. After cleaning, the packers are hammered into the boreholes, but still allow the nozzle of the injection machine to completely enclose the packers head.

If larger cavities, gaps or open joints are present, the boreholes should be filled with Oxal BS-V via low-pressure injection first.

Execution

Borehole injection

Selecting a suitable horizontal barrier depends on the degree of moisture penetration. The material is injected by low-pressure injection with a maximum pressure of 10 bar into the prepared injection holes.

Closing of the boreholes

If the wall stops taking up more injection material, the injection process is completed. The plastic packers are cut off flush with the wall surface. Finally, the boreholes can be filled with Oxal BS-V and closed with the barrier mortar Oxal SPM.

Sealing of joints at wall to floor connections

At wall to floor connections, the base plate has to be separated from the outer wall by creating a 4 x 4 cm wide channel, and the masonry is cleaned.

Later, the channel is closed with the barrier mortar Oxal SPM.

Creating a coving

The formation of a coving (at least 5 cm radius) in the conversion of wall to floor is created with the barrier mortar Oxal SPM.

Closing of joints, cracks, or horizontal joints of old bitumen barrier

Horizontal joints of old bitumen barrier, open cracks or brittle, sanding joints have to be removed up to 2 cm depth and afterwards the masonry has to be cleaned. Such prepared surfaces are closed with the barrier mortar Oxal SPM.

Application of sealing slurry

The inside surface of the outer wall must be sealed with the sealing slurry Oxal DS-HS up to 30 cm above the afterwards inserted horizontal barrier. The sealing slurry needs to be applied in two work steps. There, the material is applied fresh in fresh by spraying or brushing on a pre-wetted substrate.

Rendering

Into the last layer of the matt damp sealing slurry, a mineral-bound spray coating (Oxal VSM) is applied. After a sufficient drying time, Oxal WP or Oxal WPw (white) can be placed on top.

B) Internal waterproofing

The procedure when executing an internal waterproofing is the same like creating a horizontal barrier. But please note that for internal waterproofing of the whole wall area, the horizontal barrier must be placed approx. 20 cm above ground level.

C) Quality render system

Preparation

Substrate cleaning / removing of old plaster

Remove old plaster for at least 80 cm above the zone of adversity. Coatings, slurries, dust, dirt, bitumen, loose particles, etc. must be removed completely. The substrate must be load-bearing and free from adhesion-reducing substances.

Joints preparation

Joints which are highly salt loaded, brittle or sanding must be cleaned out to at least 2 cm by scratching or milling.

Handling Information

Sealing of joints / Levelling

Fresh jointing or levelling of holes or gaps is conducted with the special salt storage render Oxal PGP.

Application of the spray coating

As bonding bridge for the Oxal quality render system, Oxal VSM, a highly adhesive spray coating, is applied netlike onto 50 - 70 % of the refurbished surface. The highest layer thickness of this product is 5 mm.

Levelling and salt storage render

At a high degree of salt loading and/or strongly uneven substrates, salt storage render Oxal PGP must be applied with a layer thickness of approx. 1 cm to reach an even substrate. For render thickness > 2 cm, working in layers is necessary. To ensure a bonding with the next render system, Oxal PGP must be roughened horizontally with e.g. a broom or a rubbing board.

Quality render

The layer thickness of the quality render Oxal WP depends on the level of salt loading. Regularly, Oxal WP is applied with a layer thickness of at least 2 cm. For a render thickness > 2 cm, working in layers is necessary. To ensure a bonding with the next render layer, Oxal WP has to be roughened horizontally with e.g. a broom or a rubbing board.

Smoothing and after-treatment

Smoothing of the surface is done by abrading with a sponge-board after sufficient drying time. If a fine surface is required, a top layer of Exzellent 750 (fine render) can be applied.

Note: The information on this data sheet is based on our experiences and correct to the best of our knowledge. It is, however, not binding. It has to be adjusted to the individual structure, application purpose and especially to local conditions. Our data refers to the accepted engineering rules, which have to be observed during application. This provided we are liable for the correctness of this data within the scope of our terms and conditions of sale-delivery-and-service. Recommendations of our employees which differ from the data contained in our information sheets are only binding if given in written form. The accepted engineering rules must be observed at all times.

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