

## METHOD STATEMENT



# LEAKING TERRACE, ROOF GUTTER AND FLAT ROOF REPAIR

COSTAR BUILDING PRODUCT SYSTEM  
Next Generation Solutions For Today's Construction

[www.costarchem.com](http://www.costarchem.com)

## 1. SCOPE

This method statement describes the step by step procedure for repairing and waterproofing leaking terraces and flat roofs.

## 2. DESCRIPTION

This method statement describes the repair and waterproofing of flat roofs and terraces with cracks and leakages.

### 2.1 LIMITATIONS

- Products shall only be applied in accordance with their intended use.
- The most recent and relevant Product Data Sheets (PDS) and Safety Data Sheets (SDS) shall apply.
- This method statement is only a guide and shall be adapted to suit local products, standards, legislation or other local requirements.

## 3. REFERENCES

To ensure correct application of all components of Costar products, please refer to the following documents of each product component:

- PDS (Product Data Sheet)
- SDS (Safety Data Sheet)

## 4. PRODUCTS

| Bonding Agent   | Product Description   |
|---|---|
| <p><b>Aqualatex C10</b></p>  | <p>Aqualatex C10 is a high quality viscous acrylic emulsion bonding agent used for concrete repairs, especially areas where good adhesion are required.</p> |

| Repair Mortar  | Product Description  |
|--|--|
| <p><b>Costar RM 20</b></p>  | <p>Costar RM 20 is a one-component, polymer-modified, easy to use cementitious patching mortar ideal for the repair or re-profiling of concrete.</p> |

| <b>Waterproofing admixture</b>  | <b>Product Description</b>  |
|---|---|
| <p><b>Hydropruf 300</b></p>  | <p>Hydropruf WP 300 is an integral waterproofing admixture specially designed to improve the quality of concrete and mortar by waterproofing and reducing the water demand for required workability and minimizes segregation and bleeding.</p> |

| <b>Primer</b>   | <b>Product Description</b>   |
|---|--|
| <p><b>Costaflo 500</b></p>  | <p>COSTAFLO 500 is two-component solvent-free epoxy primer with high mechanical strength developed for use on metal and concrete surfaces.</p> |

| <b>Polyurethane Waterproofing Membrane</b>  | <b>Product Description</b>  |
|---|---|
| <p><b>Conseal 250</b></p>  | <p>CONSEAL 250 is a revolutionary single component permanently elastic Polyurethane waterproofing membrane which after polymerization forms an elastomeric polyurethane membrane, resisting UV rays and capable of handling building movements.</p> |

| <b>Acrylic Waterproofing Membrane</b>   | <b>Product Description</b>   |
|---|--|
| <p><b>Conseal 100</b></p>  | <p>Conseal 100 is a solvent free elastomeric coating designed for sealing and waterproofing of roofs, walls and other wet areas. The surface is a hard wearing, durable protective and waterproof coating.</p> |

## 5. INVESTIGATION

Inspect terrace or flat roof for cracks, check if the slope is good and does not allow water sit on the slab. Also, check that the substrate is not loose (sandy).

## 6. APPLICATION METHOD/TOOLS

The application method depends on the state of the surface. If slope and substrate are poor, a new screed should be done to seal up the cracks and improve slope. If slope and substrate are good but cracks are visible, repair cracks with repair mortar. Bonding agent is required for both processes.

### 6.1 Substrate preparation

Adequate surface preparation is required before the application of the treatment.

- Clean surface to ensure surface is clean, free from dirt or grease and loose particles.
- Sand, strip and clean glossy and painted surfaces.
- Ensure concrete surfaces are free from efflorescence accepting of water in order to form a good bond.
- Roughen smooth concrete surfaces before installation.
- Test by sprinkling water on the substrate; water beading indicates the presence of contaminants which could cause loss of adhesion.
- The surface should be surface saturated with water.

### 6.2 Application of Aqualatex C10 to bond screed or repair mortar

- Use only clean, dampened containers and clean, dry cement for the mix.
- Mix at the rate of 0.5 Part Cement: 1 Part Aqualatex C10 by Weight.
- Scrub mix into the substrate with a brush.
- The repair mortar/topping should be applied whilst the primer is still tacky.

### 6.3 Application of Costar Mortar 10 to repair cracks where substrate and slope are good

- Mix manually using an electrical hand mixer or mechanically.
- Mix 20 kg of Costar Mortar 10 with 6 liters of clean water until a homogeneous paste is obtained.
- Allow mix to sit for a few minutes after mixing.
- Apply mortar in one direction.
- Allow to cure for 15 days.

### 6.4 Screed with Hydropruf 300 to improve poor slope or where substrate is weak

- Cart out weak substrate or old screed to expose concrete.
- Mix Hydropruf 300 with concrete mix at 120ml to 250ml per 50kg bag of cement. ( See method statement for detailed application procedure)
- Reduce water in mix by 15% if maximum dosage is used to ensure no loss in strength.
- Measure and stir the required quantity of Hydropruf WP 300 into the first or second bucket of water.
- Add Hydropruf WP 300 water mixture to the mortar and mix thoroughly.
- Continue mixing and add more until the required workability is obtained.
- Screed at 25mm thickness.
- Allow to cure for 15 to 21 days.

### 6.5 Application of waterproofing membrane

#### Conseal 250 Application:

- Priming: Prime absorbed surface like concrete, cement screed or wood with Costar Primer. Allow the primer to cure according to its technical instruction.
- Stir well before using.
- Pour CONSEAL 250 unto the primed surface and lay it out by roller or brush until all surfaces are covered.
- Reinforce joints with geotextile fiber.
- Apply another layer or the CONSEAL 250 not later than 48 hours.
- Coverage: 1.4-2.5Kg/m<sup>2</sup> applied in two to three layers. This coverage is based on application by roller onto a smooth surface in optimum conditions. Factors like surface porosity, temperature and application method can alter consumption.

**Alternative Product-Conseal 100 Application:**

- Stir well before using for at least 2-3 min.
- Apply the CONSEAL 100 onto the surface by roller or brush, until all surfaces are covered.
- A minimum two coats of membrane are essential for permanent results.
- Apply coats at right angles to prior coat.

## 7. INSPECTION, QUALITY CONTROL

As part of “Good Practice” the contractor shall apply an inspection procedure to check the quality of the applied protection system.

## 8. DISCLAIMER AND COSTAR COMPANY ADDRESS

All recommendations, statements and technical data herein are based on tests we believe to be reliable and correct, but accuracy and completeness of said tests are not guaranteed and are not to be construed as a warranty either expressed or implied. User shall rely on his or her own information and tests to determine suitability of the product for the intended use and user assumes all risk and liability resulting from his or her use of the product. Nothing contained in any supplied materials relieves the user of the obligation to read and follow the warnings and instruction for each product as set forth in the current Technical Data Sheet, product label and Safety Data Sheet prior to product use away.



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