

METHOD STATEMENT



FLAT ROOF WATERPROOFING

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

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1. SCOPE

This method statement describes the step by step procedure for waterproofing a flat roof.

2. DESCRIPTION

This method statement describes the waterproofing of a flat roof with either a polyurethane waterproofing membrane or acrylic waterproofing membrane.

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

Polyurethane waterproofing membrane	Product Description
<p style="text-align: center;">Conseal 250</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. Once cured CONSEAL 250 allows for expansion and contraction over a broad temperature range and maintains waterproofing properties under continuous exposure to water. It may be applied easily on different surfaces (concrete, mortar, brick, ceramics, bituminous membranes, steel, zinc, Aluminum).</p>

ALTERNATIVE WATERPROOFING MEMBRANE

Acrylic waterproofing membrane	Product Description
<p style="text-align: center;">Conseal 100</p> 	<p>CONSEAL 100 is a solvent free, flexible acrylic emulsion coating designed for sealing and waterproofing of roofs, walls and other wet areas. The surface is a hard wearing and durable coating recommended for concrete, masonry, asphalt, metal and other similar surfaces. The coating is also recommended as a textured architectural finish coat for internal and external surfaces including blue board, cement sheet, brick and concrete walls.</p>

5. APPLICATION METHOD/TOOLS

5.1 SUBSTRATE PREPARATION

Ensure that the slope of the flat roof is adequate enough to prevent water from sitting on the roof. Adequate and detailed surface preparation is essential for durability of product after installation.

5.2 Conseal 250 Application

- Before application surface must be clean, dry and without contamination.
- The compressive strength of substrate must be at least 25MPa and cohesive bond strength must not be less than 1.5MPa.
- All loose concrete, chirpings and dust should be removed, and uneven surface smoothed with the aid of grinding.
- Priming: Prime absorbed surface like concrete, cement screed or wood with Costar Primer. Allow the primer to cure according to its technical instruction.
- Stir Conseal 250 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/m² 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.

5.3 Conseal 250 application

Property Test	Method	Result
Hardness (Shore A Scale)	ASTM D 2240	60 shore a scale
Elongation at Break	ASTM D 412/DIN 52455	=%100
Tensile Strength	ASTM D 412/DIN 52455	=8 N/mm ²
Water Vapor Permeability	ASTM E 96	>25gr/m ² /day
Adhesion to Concrete	ASTM D 903	2N/mm ²
Service Temperature		-40°C to +80°C
Rain Stability Time		4 hours
Final Curing Time		7 days

6. ALTERNATIVE WATERPROOFING MEMBRANE

6.1 Conseal 100 Application

- Before application surface must be clean, dry and without contamination.
- The compressive strength of substrate must be at least 25MPa and cohesive bond strength must not be less than 1.5MPa.
- All loose concrete, chirpings and dust should be removed, and uneven surface smoothed with the aid of grinding.
- Stir Conseal 100 well before using for at least 2-3 min.
- Apply CONSEAL 100 onto the surface by roller or brush, until all surfaces are covered.
- Apply a minimum of two coats of membrane for permanent results.
- Apply coats at right angles to prior coat.

6.2 Technical Properties

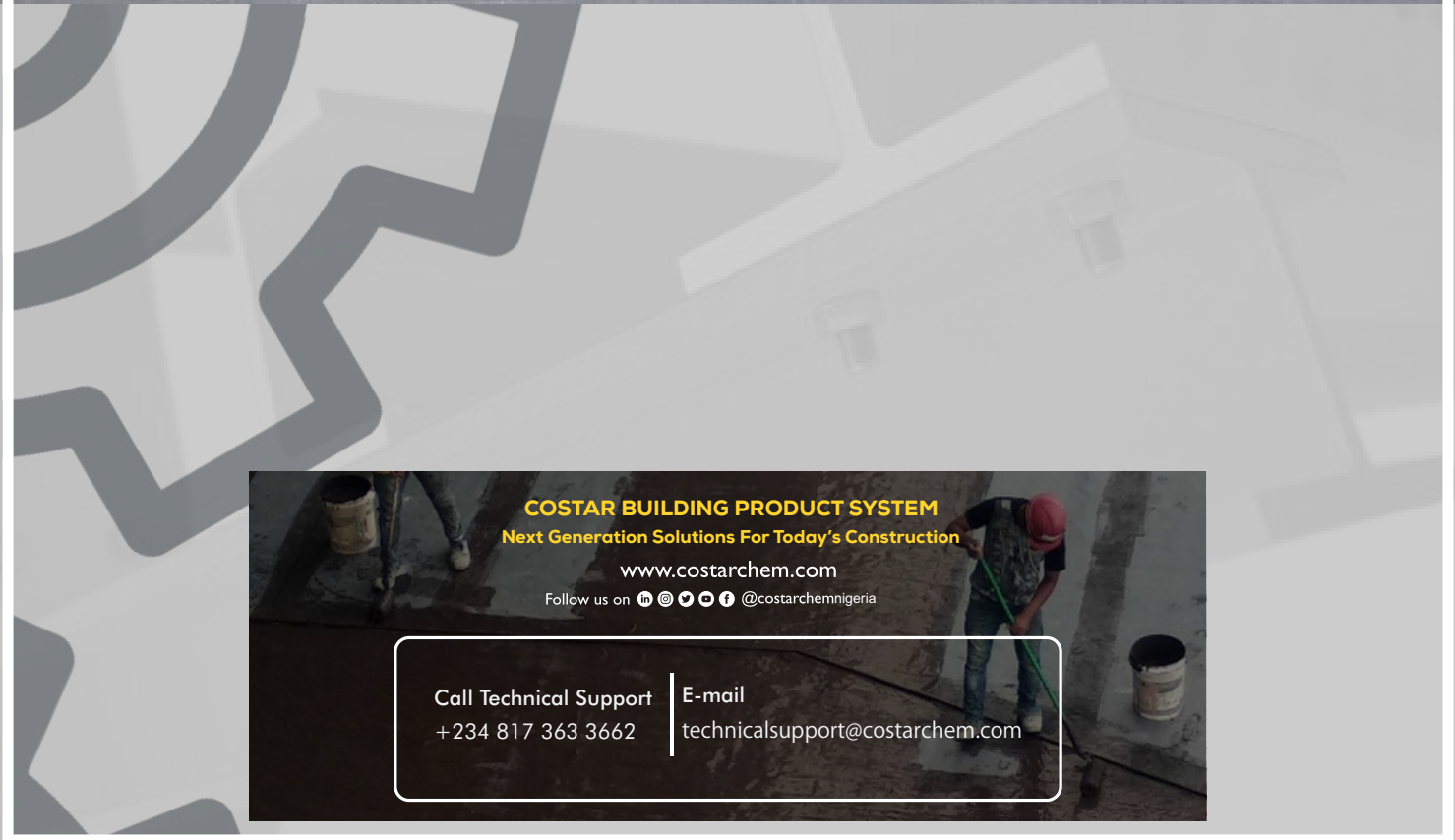
Property Test	Method	Result
Hardness (Shore A Scale)	ASTM D 2240	60 shore a scale
Elongation at Break	ASTM D 412/DIN 52455	≥ % 900
Tensile Strength	ASTM D 412/DIN 52455	=8 N/mm ²
Water Vapor Permeability	ASTM E 96	0,8 gr/m saat
Adhesion to Concrete	ASTM D 903	≥ 2N/mm ²
Service Temperature		-40 0C to +80 0C
Rain Stability Time		1 hours(hot dry climates) 24hours(humid conditions)
Final Curing Time		7 days
Rapid Chloride Permeability	AASHTO T2777	Very low
Pull off Strength	ASTM D4541	> 1N/mm
Fire Testing	BS 476 part 6&7	Class 1

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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