

Polyurea WH100 T

Cold applied, two component Polyurea waterproofing system

Uses

Waterproof and protective coating for concrete and steel in a wide range of environmental conditions.

Typical applications include:

- Terraces, roofs, balconies and creek gutters,
- Flower bed insulation
- Foundation and curtain waterproofing
- Reinforced concrete and sheet metal surfaces

Advantages

- It has high crack bridging properties.
- It maintains its high elasticity even at low temperatures.
- Easy to apply (by roller, brush or spray).
- Provides excellent adherence even on difficult surfaces.
- It shows high resistance against the passage of ponded water.
- Can be used under continuous water contact

Description

Polyurea WH100 T is a two-component, elastic, high-strength, Polyurea waterproofing system.

Properties

Typical properties	
Colour	Grey
Density	1,15 ± 0,05
Pot life	> 40 mins
Waiting time between coats	Min. 5 hours
Walkable	~24 saat
Light trafficable	2 days
Fully cured	7 days
Viscosity	4500±1500 mPa.s
Humidity Tolerance	% 5
Adhesion Strength to Concrete	
TS EN 1542	> 2 N/mm ²
Adhesion Strength to Metal	
TS EN 1542	> 2 N/mm ²
Tensile Strength at Elongation	
ASTM D 412	> 8 N/mm ²
Elongation	
ASTM D 412	> %800

Project Log

A Project Log should be maintained for each polyurea site application. For details of Project Log requirements refer to the Fosroc Polyurea Method Statement.

Instruction for use

Surface preparation

Surfaces must be clean and sound and must be free of all kinds of dust, oil, dirt, rust, mold oil, detergent, etc. If there is segregation in the concrete, damaged and loose parts should be discarded and weak pieces should be removed. If there are cracks or cavities on the floor or wall where the application will be made, they should be repaired with suitable Renderoc repair mortars. Polyurea WH100 T application should be started at least 7 days later.

Before applying Polyurea WH100 T, if there is expansion joint, first of all, it should be insulated using chamfer or expansion tapes and Nitobond PC20. Later, the insulation work of the expansion joint will be more difficult and costly. Around the drains, gutters and strainers should be insulated using chamfer tapes. The surface to be insulated must be dry. If there is a puddle or ponding, it should be removed.

New concrete floors

These should normally have been placed for at least 28 days and have a moisture content of less than 5%. Floors should be sound and free from contamination such as oil and grease, mortar and paint splashes or curing compound residues. Excess laitance deposits are best removed by light mechanical scabbling, grinding or grit/captive blasting followed by vacuum cleaning to remove dust debris.

Old concrete floors

A sound, clean substrate is essential to achieve maximum adhesion. Substrate must be sound and weak particles must be removed. Laitance deposits are best removed by light mechanical scabbling, grinding or grit/captive blasting. Oil and grease penetration should be removed by the use of a proprietary chemical degreaser or by hot compressed air treatment. Any damaged areas or surface irregularities should be repaired using one of the Fosroc epoxy repair mortars products.

Bare Steel

All welding seams must have a surface finish which ensures that the quality of the paint system will be maintained in all respects. Holes in welding seams, undercuts, cracks, etc. must be avoided. If found, they

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must be remedied by welding and/or grinding. All weld spatters must be removed. All sharp edges must be removed or rounded off in such a way that the specified film thickness can be built-up on all surfaces. The radius of the rounding must be minimum 2 mm.

The steel must be of first class quality and must not have been allowed to rust more than corresponding to grade B of ISO 8501-1:2007. Any laminations must be removed. Blast cleaning to Sa 2½. (ISO 8501-1:2007).

Roughness: using abrasives suitable to achieve a coarse surface of Grade Medium G (50-85µm, Ry5) (ISO 8503-2).

Priming

Following correct preparation, the substrate must be primed. For sound, dry concrete and at ambient/substrate temperatures of >10°C, prime using Fosroc Nitoprime 31 or Nitoprime 52. For steel surfaces use Fosroc Primer 195, for other surfaces consult Fosroc for advice. For concrete, suggested application rate is 150 – 300 gr/m². A broadcast of fire-dried sand is recommended for optimum adhesion properties..

Before applying Fosroc Polyurea WH100 T, it is necessary to wait at least 4 hours and maximum 24 hours for the primer to cure sufficiently.

Refer to Fosroc Polyurea Method Statement for full details.

Mixing

In a clean container or in its own container, first mix the A component of Polyurea WH100 T and then pour the B component on it. It is mixed with a low-speed drill until a homogeneous mixture without lumps is obtained at least 3 minutes.

Application

The client/ main contractor must be satisfied that the applicator has suitable equipment and expertise, and will follow the procedures detailed in this datasheet and in the Fosroc Polyurea Method Statement.

The mixed product is applied to the surface with stiff bristle brushes, rollers or spraying machines. The second coat should be applied in the direction perpendicular to the first coat application. Waiting time between coats is minimum 6 and maximum 24 hours. After the application of the first layer, when the application reaches touch dryness, other layers can be applied. When necessary, carrier glass fiber can be used as reinforcement between floors.

After application, the coating should be protected against adverse weather conditions such as direct sunlight, strong wind, high air temperature (over +35°C), rain and frost.

Packaging	
Polyurea WH100 T	20 kg set (10 kg+ 10 kg)
Nitoprime 31	14 kg set
Nitoprime 52	25 kg set
Primer 195	20 kg set
Consumption	
Polyurea WH100 T	1,2 - 1,3 kg/m² (at 1 mm film thickness)
Nitoprime 31 / Nitoprime 52	350 - 500 gr/m²
Primer 195 steel	150 gr/m²

Cleaning

Sprey equipment has to be cleaned according to the instructions of the producer company after use.

Limitations

Do not proceed with application if atmospheric relative humidity is >75% or if the surface temperature is <3°C above the dew point.

For a bonded polyurea coating application, concrete substrate must have achieved at least 75% of its design strength. Concrete relative humidity must be ≤75%. Do not proceed with application if the substrate temperature or the ambient temperature is, or is anticipated to be, <+5°C during the application.

For work in exposed areas, do not proceed with application if precipitation is imminent. If in doubt, contact Fosroc for advice.

Technical support

Fosroc offers a comprehensive technical support service to specifiers, end users and contractors. It is also able to offer on-site technical assistance, an AutoCAD facility and dedicated specification assistance in locations all over the world.

Storage

Shelf Life

Fosroc Polyurea WH100 T has a shelf life of 6 months if kept in a dry, air conditioned store between +5°C and +30°C in the unopened original packaging.

Cleaning and disposal

Spillages of component products should be absorbed on to earth, sand or other inert material and transferred to a suitable vessel. Disposal of such spillages or empty packing should be in accordance with local waste disposal regulations.



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Precautions

Health and Safety

Polyurea WH100 T, Nitoprime 31/52 and Primer 195 should not come in contact with skin and eyes or be swallowed. Avoid prolonged inhalation of solvent vapours.

Some people are sensitive to epoxy resins, hardeners and solvents. Gloves, goggles and a barrier cream such as Kerodex Antisolvent or Rozalex Antipaint should be used. Ensure adequate ventilation and if working in enclosed areas, use suitable breathing apparatus.

If mixed resin comes into contact with the skin, it must be removed before it hardens with a resin removing cream such as Kerocleanse Standard Grade Skin Cleanser or Rozaklens Industrial Skin Cleanser, followed by washing with soap.

Should accidental eye contamination occur, wash well with plenty of clean water and seek medical advice. If swallowed, seek medical attention immediately. Do not induce vomiting.

For further information, refer to the product Material Safety Data Sheet.

Additional Information

Fosroc manufactures a wide range of complementary products which include :

- waterproofing membranes & waterstops
- joint sealants & filler boards
- cementitious & epoxy grouts
- specialised flooring materials

Fosroc additionally offers a comprehensive package of products specifically designed for the repair and refurbishment of damaged concrete. Fosroc's 'Systematic Approach' to concrete repair features the following :

- hand-placed repair mortars
- spray grade repair mortars
- fluid micro-concretes
- chemically resistant epoxy mortars
- anti-carbonation/anti-chloride protective coatings
- chemical and abrasion resistant coatings

For further information on any of the above, please consult your local Fosroc Office.

** Denotes the trademark of Fosroc International Limited*

† See separate data sheet



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Important Note

Fosroc products are guaranteed against defective materials and manufacture and are sold subject to its standard Conditions for the Supply of Goods and Service. All Fosroc datasheets are updated on a regular basis. It is the user's responsibility to obtain the latest version.

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