

Fosroc® Polyurea WH110 Clear

Fast setting, hand-applied transparent hybrid polyurea elastomeric waterproof coating

Description

Fosroc Polyurea WH110 Clear is a hand-applied, flexible, two-component, transparent hybrid Polyurea system, designed as a waterproofing and protective coating system.

Fosroc Polyurea WH110 Clear consists of two main components. Fosroc Polyurea WH110 Clear Part A ISO; Fosroc Polyurea WH110 Clear Part B AMINE.

The system offers excellent surface properties and overall physical properties.

Uses

Fast curing waterproof and protective coating for concrete and various substrates surface such as ceramic tile, wood, metal, etc. Does not require plural proportioning equipment meaning it's especially beneficial for smaller roof areas or where access for equipment is difficult.

Typical applications include:

- Kitchen
- Bathroom
- Balcony and exposed area
- External wall
- Rooflet, canopy

Advantages

- Excellent adhesion to various substrates
- Moderate hardness and elasticity, with good sealing ability, minimize leakage effectively
- Seamless and monolithic, including field joints
- Good weather resistance enhances the durability of reinforced concrete
- Can be applied by brushing, rolling and spraying, does not require plural proportioning equipment

Specification

Where mentioned in the contract drawings, the protective and waterproofing coating shall be Fosroc Polyurea WH110 Clear, flexible, two-component, transparent polyurea membrane system.

Properties

Typical Physical properties at 25°C

Tensile strength ASTM D412	: 12 MPa
Elongation ASTM D412	: >150%
Hardness, Shore A ASTM D2240	: 90
Water pressure Resistance DIN 1048 Part 5	: 7 bars
Bonding Strength ASTM D4541-09	: 2.0 MPa (Concrete) : 1.0 MPa (Metal) : 1.0 MPa (Tile)

Clarification of property values

The typical physical properties given above are derived from independent verified testing of Fosroc Polyurea WH110 Clear hand-applied in accordance with the Fosroc Polyurea Method Statement in controlled laboratory environment and tested after a minimum of 14 days cure.

Results derived from testing field-applied samples may vary dependent on circumstances beyond our control such as application temperatures and weather conditions, film thickness, test and curing conditions and age of samples tested.

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Instructions for use

Surface preparation

All surfaces must be clean, dry and free from contamination. Steel surfaces must be assessed and treated in accordance with ISO 8504.

Concrete

The base surface should be clean, dry, free of oil, rust, cracks, holes, peeling, and other defects. The concrete base surface should be fully dried after reasonable maintenance, and the strength should reach C25 or above, and the moisture content should be less than 5%.

Other substrates

The metal base surface should be degreasing and rust-removing, and sanded rough, and conditions permitting should be sandblasted; wood base surface should be sanded smooth and free of burrs; tiles, etc. should be thoroughly cleaned and fully dried. Polishing the glaze surface of the tiles can significantly improve the coating adhesion. The existing cracks and holes on the base surface should be repaired, plugged and fully dried in advance.

Application

Under normal circumstances, the dosage of this product is 0.1~0.15 kg/m² per application, and it is recommended to apply more than 2 times, with the total dosage of 0.2~0.3 kg/m².

For roof application with flat and smooth substrates such as tiled roofs or metal roofs, a typical application thickness of around 0.5 mm~1.0mm is commonly adopted. This approach supports "no tile removal" refurbishment solutions, provided that existing substrates are inspected and any cracks, voids, and defects are properly treated beforehand. In such cases, a transparent polyurea layer can be applied as a protective top layer, maintaining the original roof appearance while enhancing waterproofing performance.

Stir both components separately. Pour full container Part B Amine into full container Part A ISO and mix for 3-5 minutes using a slow speed drill and paddle. Mixing ratio is 1:1 by weight. The pot life of the coating is about 30 minutes depends on temperature and humidity. The mixed coating should be used as soon as possible. The viscosity will increase significantly after the pot life. Do not dilute with thinner under any circumstances.

The coating can be applied by rolling, brushing or spraying. It can be applied multiple times to increase the thickness and improve the impermeability and durability. The interval between each coat is 4-12 hours, and the degree of dryness can be tested by hand, and the next coats can be carried out only with proper strength.

During application, the critical areas such as corners should be painted first, and then the whole surface should be painted after the surface is dry. For areas that have leaked or are prone to leaks, the thickness of the coating can be increased appropriately to enhance the anti-seepage performance.

It normally takes 2-4 hours after coating for surface dry, 8-12 hours for curing, with certain strength, and 24~48 hours for full curing, depends on the temperature, humidity and ventilation, etc. Avoid stepping on and falling of debris during the curing .

Use cleaning solvent for cleaning tools.

Estimating Supply:

Fosroc Polyurea WH110 Clear Part A ISO component

Pack Size	: 5kg or 1kg
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Fosroc Polyurea WH110 Clear Part B AMINE component

Pack Size	: 5kg or 1kg
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Coverage:

Fosroc Polyurea WH110 Clear	: 6-10m ² per 2kg pack
	: 33-50m ² per 10kg pack

Storage

Fosroc Polyurea WH100 Clear has a shelf life of 12 months if kept in a dry, air conditioned store between +5°C and +30°C in the original unopened containers. Any changes in colour have no negative effect on reactivity and physical properties of the coating.

Precautions

For full information refer to appropriate Product Safety Data Sheet.



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Limitations

Environmental temperature and humidity requirements: the construction environment temperature is between 5 and 35 °C, and the base surface temperature is at least 5 °C higher than the air dew point temperature; the humidity range should be between 30 and 80%.

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 or within the drying period.

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

It should be noted that Fosroc Polyurea WH110 Clear is an aromatic polyurea; therefore, as with all aromatics, over a period of time some color change will occur if exposed to UV rays. This will not cause any negative effect on the physical properties of the product.

Flash Points

Fosroc Polyurea WH110 Clear Part A ISO : 90°C

Fosroc Polyurea WH110 Clear Part B Amine : 70°C

Safety handling

Avoid contact with eyes and skin. Wear suitable protective clothing, gloves and eye/face protection at all times. Ensure adequate ventilation and avoid inhalation of vapour. Fosroc Polyurea WH110 Clear Part A, Part B and mixed material and Fosroc Equipment Cleaner are flammable materials. Keep away from sources of ignition.

In case of eye contact, first aid must be administered immediately. The eyes should be held open while flushing with a continuous low pressure stream of water for at least 15 minutes. Seek medical advice immediately. If swallowed, seek medical attention immediately - do not induce vomiting.

The use of barrier creams provides additional skin protection.

Refer to product safety data sheets for detailed information.

Disposal considerations

Cured Fosroc Polyurea WH110 Clear can be disposed of without restriction. The uncured Part A and Part B components should be disposed of according to local environmental laws and ordinances. "Drip free" containers should be disposed of according to local environmental laws and ordinances.

Refer to Safety Data Sheet for all relevant information on Fosroc Polyurea WH110 Clear.

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Important note

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