

Wethan 275

Waterproofing, UV-stable 1C polyurethane resin



Brief description

Wethan 275 is a high-grade 1C polyurethane waterproofing layer for the flameless waterproofing of upstands and edges, as well as for waterproofing flat areas with and without fleece. As a highly elastic waterproofing layer, Wethan 275 is tested, approved and classified according to ETAG 005 as a category 3 product (service life of at least 25 years).

Material

1-component, highly flexible polyurethane-based waterproofing resin

Product characteristics

Wethan 275 hardens into a seamless, highly elastic and waterproof membrane. If applied at a sufficient thickness, Wethan 275 is root-resistant and offers a high crack-bridging capability for cracks up to 2 mm. Wethan 275 possesses a good water-vapour diffusion capacity. The waterproofing is UV-resistant and offers good chemical and mechanical resistance.

Application

For exterior application at layer thicknesses > 1.7 mm, with or without embedded polyester fleece. However, its use for a particular purpose should be tested prior to application. We recommend embedding a fleece in areas susceptible to cracking, at upstands and edges and also at wall junctions. Designed for residential, commercial and industrial developments with light-duty mechanical and chemical exposure. For flat roofs, sloping roofs, PUR spray foam coatings, water tanks, water ducts etc.

Wethan 141 is used as a primer on absorbent substrates such as concrete, stone or wood. Non-absorbent substrates, such as bitumenised sheets, metal etc. can be coated without the need for a primer. For further information about substrates and their preparation please refer to the Weplus substrates table.

Wethan 275 absorbs substrate movements due to temperature fluctuations between – 30 °C and + 90 °C (depending on the layer thickness applied / use of fleece).

Wethan 275 is supplied ready for use. Additional fillers should never be added, as this would reduce the flexibility of the membrane.

When fully cured, Wethan 275 is resistant to water, seawater and waste water as well as to numerous alkali solutions, diluted acids, salt solutions, mineral oils, lubricants and fuels, and to many solvents.

Depending on the substance, concentration and duration, exposure to chemicals may result in superficial colour changes, although this will not affect the reliable function. Polyurethanes with this composition have a strong tendency to change colour under the influence of UV radiation.

Colours

Grey

Product information

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Packaging

6 kg, 15 kg and 25 kg



Shelf life

9 months from date of production if stored in original, sealed containers
Store in a dry, cool and frost-free area!

Application

Mixing ratio:

1-component product

Material consumption:

With fleece (weight per unit area 110 g/m²)

Recommendation: 2.40 – 4.10 kg/m²

Two or three coats

Without fleece 1.40 – 2.50 kg/m²

Two or three coats

Maximum consumption per coat - 0.6 mm layer (approx. 0.9 – 1.0 kg/m²)

Application times:

15 – 20 minutes (30 °C)

30 – 40 minutes (20 °C)

60 – 80 minutes (10 °C)

Application of next coat:

10 – 14 hours (30 °C) (not more than 48 hours)

12 – 18 hours (20 °C) (not more than 48 hours)

20 – 30 hours (10 °C) (not more than 48 hours)

Curing (can be exposed to full mechanical load):

3 days (30 °C)

7 days (20 °C)

10 days (10 °C)

General information:

These times are extended at higher temperature.

These times are reduced at lower temperatures.

Application / Substrate

Absorbent substrates such as concrete, cement, cement screed etc. must provide a good grip and be clean, sound, free from adhesion-reducing substances, e.g. grease, oil etc, and dry. Maximum residual moisture 5 % (CM measurement). The surface must to be properly prepared by grinding, scarifying or sand-blasting. Wethan 141 is first applied as a primer to the dust-free surface.

Non-absorbent substrates such as bitumenised sheets, metals etc. generally do not need the application of a primer once they have been properly prepared. Please refer to the Weplus substrates table. Metal substrates are best prepared by sand-blasting.

If in doubt, we recommend that you carry out adhesion tests on site.

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Application / Tools



Smoothing trowel, serrated-edge squeegee or similar tool, airless spray gun, short- or medium-pile roller

Application / Mixing

No mixing required. We recommend stirring the product in the container to homogenise it prior to application.

Application



Pour the product onto the prepared surface and distribute it evenly using a squeegee – preferably one with a serrated edge – or a smoothing trowel. The maximum thickness for each layer should not exceed 0.6 mm. If necessary a spiked roller may be used to deaerate the applied product. Deaeration is required if problems arise on account of the substrate. The product can also be applied using a roller (short-pile or medium-pile) or an airless spray gun. When coating larger areas, please make sure that work can progress rapidly to avoid colour differences and overlap marks.

Application / General information



The material, air and ground temperatures must be measured and must be between 5 °C and 35 °C throughout the application period. Furthermore, the substrate temperature must always be at least 3 °C above the dew point. The relative humidity must not exceed 80 %. Ensure good ventilation after application and during the curing process. The area must be protected from direct contact with water throughout the hardening phase.

Product data

Density at 23 °C / 50 % rel. h.:	approx. 1.4 g/cm ³
Adhesive pull strength:	> Concrete failure
Shore hardness:	A 65
Elongation at break [%]	> 800 %
Tear strength	> 4.0 N/mm ²

General information:

Viscosity is reduced at higher temperatures.

Viscosity is increased at lower temperatures.

Information on safety

The product is only approved for trade use.

For the safe handling of polyurethanes and hardeners, please refer to the following information sheets: M 044, Manufacture and application of polyurethanes / isocyanates (published by: Berufsgenossenschaft der Chemischen Industrie [Chemical Industries Association]). Furthermore the important physical, safety, toxicological and ecological data can be found in the substance-specific safety data sheets.

Disposal:

Fully cured material can be disposed of as domestic waste. Recycle emptied containers. Liquid material must be disposed of as waste paint containing solvent or other hazardous substances.

Information on safety

Please refer to the safety data sheets for the products used.

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General information

The above information, especially information about application of the products, is based on extensive development work as well as many years of experience and is provided to the best of our knowledge. However, the wide variety of requirements and conditions on site mean that it is necessary for the product to be tested to ensure that it is suitable for the intended purpose. Only the most recent version of the document is valid. We reserve the right to make changes to reflect advances in technology or improvements to our products.

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