



Hard Top 2K PU

Solvent Based Elastic Hard Top PU

Pack Size
6Kg

TDS Technical Data Sheet

Product Description

Hard Top 2K PU is a liquid-applied, solvent-free, hard-elastic, cold-applied, and cold-curing twocomponent polyurethane membrane used for long-lasting waterproofing and protection. The membrane cures by reacting (cross-linking) of the two components.

Advantages

- Forms a seamless membrane without joints or leak possibilities.
- Resistant to cold water, warm water, and frost.
- Maintains mechanical properties over a temperature range of -30°C to +90°C.
- Remains elastic even at low (frost) temperatures.
- Odor-free and solvent-free.
- Provides full surface adherence.
- The waterproofed surface can be walked on.

Uses

- Waterproofing of water tanks and reservoirs.
- Odorless waterproofing of wet areas (under-tile) in bathrooms, swimming pools, kitchens, etc.
- Waterproofing surfaces in direct contact with potable (drinking) water.
- Waterproofing of not well-ventilated wet rooms and areas (bathrooms, kitchens, etc.) applied beneath tiles, where an odorless, solvent-free coating is required

Surface Preparation:

- Careful surface preparation is essential for optimum finish and durability.
- The surface needs to be clean and sound, free of any contamination, which may harmfully affect the adhesion of the primer.
- Maximum moisture content should not exceed 5%.
- Substrate compressive strength should be at least 25 MPa (N/mm²), cohesive bond strength at least 1.5 MPa (N/mm²).
- Old coatings, dirt, organic substances, and dust need to be removed by a grinding machine.
- Oil or grease contamination must be cleaned substantially.
- Possible surface irregularities need to be smoothened.
- Any loose surface particles and grinding dust need to be thoroughly removed.

Crack repair:

- We recommend treating static cracks in the substrate, wider than 0.2 mm to repair by using injection resin.
- The crack has to be opened v- shaped by using a diamond disc saw.
- Then cut rectangular to crack in a distance of 15 - 20 cm and place reinforcing metal blades inside.
- Pour injection resin into crack until saturation.

Cracks in vertical surfaces should be threatened by high-pressure injection of epoxy resin.

WARNING: Do not wash surface with water!

Priming:

Prime surfaces, like concrete, cement screed, metal, and ceramic tiles by using Carbolink's AT 107 primer (min. 100 - 200 g/m²).

Allow 6 - 12 hours to cure.

Mixing:

Stir Hard Top 2K PU Component B well before using.

Then add Hard Top 2K PU Component A at the correct mixing ratio.

Hard Top 2K PU Component A and Component B should be mixed by low-speed mechanical stirrer, for about 3-5 min.

ATTENTION: The mixing of the components has to be effected very thoroughly, especially on the walls and bottom of the pail until the mixture becomes fully homogeneous.

Application of waterproofing membrane:

- Pour the entire Hard Top 2K PU A+B mixture onto the primed and prepared surface and spread out by roller or brush, until the surface is covered.
- Reinforce always with Pro Membrane / Pro Joint Tape at detail areas, like wall-floor connections, 90° angles, chimneys, pipes, waterspouts (siphon), etc.
- In order to do that, apply on the still wet Hard Top 2K PU a correctly cut piece of Pro Membrane / Pro Joint Tape, press it to soak, and saturate again with another layer of Hard Top 2K PU.
- After 12-18 hours - but not later than 48 hours apply the second layer of Hard Top 2K PU by using a roller or brush.
- Repeat this process in the mentioned time frame if the required layer thickness has not been achieved.
- If the waterproofing coat is to be covered with ceramic tiles, fully saturate with oven-dried silica sand (aggregate size 0.4-0.8 mm) the last layer while still wet. This saturation will create an adhesion bridge to the tile adhesive that will follow.

ATTENTION: Please ensure consumption within the pot life of the product (approx. 30 min at +20°C).

Please do not leave the mixed Hard Top 2K PU A+B coating in the pail for long, because the exothermic reaction accelerates the curing and will shorten the pot-life.

Directly after mixing, pour the mixture on the surface or in smaller pails to minimize the exothermic reaction.

RECOMMENDATION: For best results, the temperature during application and cure should be between +5°C and +30°C.

Low temperatures retard cure while high temperature speeds up curing.

Consumption:

1.5 - 2.5 kg/m² applied in two or three layers fully reinforced.

This coverage is based on practical application by roller onto a smooth surface in optimum conditions.

Factors like surface porosity, temperature, humidity, application method, and finish required can alter consumption.

Colors:

Hard Top 2K PU is supplied in off-white and grey.

Due to the sensitivity of aromatic polyurethane to UV rays, the applied coating might yellow and fade on the surface.

This change in appearance does not modify its mechanical properties or leak tightness.

Packaging:

- Hard Top 2K PU A+B is supplied in 13 kg packs.
- Pails should be stored in dry and cool rooms for up to 12 months.
- Protect the material against moisture and direct sunlight.
- Storage temperature: 5°C - 30°C.
- Products should remain in their original, unopened containers, bearing the manufacturer's name, product description, batch number, and application precaution labels.

Technical Parameters:

PROPERTY: RESULTS: TEST METHOD Composition: Polyurethane Resin + Hardener

Water Absorption	< 0.80 % after 72 hrs
Resistance to Water Pressure	No Leak (1 m water column, 24 h) DIN EN 1928
Elongation at Break	> 40% ASTM D 412
Adhesion to concrete	> 2.0 N/mm ² ASTM D 903
UV accelerated ageing, in the presence of moisture	: Passed - No significant changes EOTA TR- 010
Hydrolysis (5% KOH, 7 days cycle)	No significant elastomeric change In-house Lab
VOC	Low
Tack Free Time	6-8 hours
Light Pedestrian Traffic Time	24 hours Conditions: 20°C, 50% RH

Final Curing time (ponding test)	7 days
Tensile Strength	> 1.2 MPa
Mixed ratio	as specified on the container

Pack Size

6Kg

Data Reliability

All technical data provided in this document are based on laboratory tests. Actual performance may vary due to factors beyond our control.

Regional Compliance

Product specifications may vary based on local regulations. Please refer to the local Product Data Sheet for precise information.

Legal Disclaimer

The information and recommendations regarding the application and end-use of Carbolink products are provided in good faith based on our current knowledge and experience. Due to variations in materials, substrates, and actual site conditions, no warranty of merchantability or fitness for a specific purpose can be inferred. The user must determine the product's suitability for the intended application. Carbolink reserves the right to change the properties of its products. All proprietary rights of third parties must be observed. Orders are subject to our current terms of sale and delivery. Always refer to the most recent local Product Data Sheet, available upon request.