

NEXA POLYUREA COLD

Cold-applied liquid polyurea membrane for waterproofing and protection

Description:

Cold-applied liquid polyurea membrane for waterproofing and protection. A two-component product that forms a continuous, elastic membrane with excellent mechanical properties and adhesion, making it resistant to weathering, extreme temperatures, UV rays, and chemicals.

Approved Uses

Waterproofing and protection of:

- Non-accessible roofs, limited to maintenance (terraces, balconies, and metal, aluminum, or fiber cement roofs).
- Heavy-duty protection roofs (bridge platforms and cement surfaces).
- Roofs with adhered coatings (bathrooms, kitchens, and humid areas).
- Walkable roofs (terraces, balconies).
- High-traffic roofs (parking lots, stations, stadium stands, shopping centers).
- Retention tanks (water reservoirs and irrigation channels).
- Green roofs.
- Buried walls.
- Protection and encapsulation of asbestos, preventing the migration of asbestos particles.

Approved Substrates

- Concrete, cement, mosaic, fiber cement, tiles, rehabilitated acrylics, asphalt emulsions, EPDM, wood, oxidized metal, and galvanized steel. For specific substrate characteristics or conditions, consult the technical department.

Limitations

- Not recommended for swimming pool waterproofing in contact with chemically treated water.
- UV resistance can be enhanced, preventing yellowing, chalking, or tonal changes by applying a pigmented layer of NEXA PU UV or NEXA UV PROTECTIVE.

Advantages

- Easy application.
- Excellent adhesion.
- Adapts to any roof shape.
- Enables rehabilitation without demolition or additional weight.
- Simplifies detection and repair of cracks.
- High resistance to weathering and UV rays.

- Excellent resistance to extreme temperatures ranging from -40°F to $+176^{\circ}\text{F}$ (-40°C to $+80^{\circ}\text{C}$). Shock temperature tolerance up to 482°F (250°C).
- High abrasion and tensile resistance.
- Exceptional elasticity exceeding 500%.
- Resistant to permanent water contact, hydrolysis, and microorganisms.
- High chemical resistance.
- Once cured, the membrane is non-toxic.
- Allows vapor diffusion.

Application

- Requires a smooth, clean, dry substrate, free from residual moisture, and as solid as possible. Use a two-component flexible mortar for waterproofing or a single-component concrete repair mortar to adapt irregular or defective substrates.

Consumption

- The coverage is 0.31-0.41 lb/ft² (1.5-2 kg/m²).
- Can be applied with a roller, brush, or airless spray gun. If diluted, use only solvent up to a maximum proportion of 10%.
- Mix the container's contents with a low-speed electric mixer, add the second component, and mix again.
- Pot life: approximately 30 minutes.
- For single-coat application, use a notched trowel with 0.1181-inch (3 mm) serrations and a de-aerating roller.
- Do not exceed 48 hours between coats. If exceeded, use a universal primer.
- Use a primer appropriate for the substrate's characteristics. Allow it to dry completely before application (approx. 4 hours).
- Reinforce critical points, highly mobile substrates, and active cracks with:
 - Reinforced EPDM tape with polyester fabric for angles, expansion joints, active cracks, and isolation joints.
 - Sealants (e.g., NEXA MASTIC PU).

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- To enhance abrasion resistance, UV protection, or achieve a walkable system, apply NEXA UV PROTECTIVE or pigmented NEXA PU UV varnish.
- For anti-slip finishes, add white corundum to the final coat of NEXA UV PROTECTIVE (granulometry depends on the intended use).
- Once opened, the container's contents should be fully used.

Consumption

- 0.31-0.41 lb/ft² (1.5-2 kg/m²), applicable in 1, 2, or 3 coats.
- Final thickness: 0.055 inches (1.4 mm).

Cleaning

- Always use solvent for cleaning tools and equipment.

Presentation

- Metallic containers:
 - Component A: 55.12 lb (25 kg).
 - Component B: 2.76 lb (1.25 kg).

Colors

- Gray (RAL 7040), White (RAL 9010), Tile.

Container Stability

12 months in a dry place between (5°C and 25°C).

Transportation, Preventive measures and Storage

Refer to the safety data sheet.

The information provided serves as a recommendation based on laboratory tests and our current knowledge. Different conditions on construction sites may result in variations from the given information; therefore, our warranty is limited to the supplied product. For any questions, please contact our technical department.

Technical data of the membrane

CONCEPTS	RESULTS
Shore Hardness	A / 85
Tensile Strength (73.4 °F)	924.7 psi (65 kg/cm ²)
Elasticity (73.4 °F)	>500%
Water Vapor Transmission	0.164 lb/ft ² ·hr (0.8 g/m ² ·hr)
Adhesion to Concrete	284.5 psi (>20 kg/cm ²)
Service Temperature	-40 °F to +176 °F (-40 °C to +80 °C)
Shock Temperature	482 °F (250 °C)

Technical data of the liquid product

95% dry matter in Xylene

CONCEPTS	RESULTS
Viscosity	3500-5500 cps
Specific Weight	81.2-87.4 lb/ft ³ (1.3-1.4 g/cm ³)
Recoat Time	6-24 hours
Touch Drying Time (at 77 °F, 55% RH)	2-3 hours
Flash Point	107.6 °F (42 °C)
Estimated Lifecycle	W3 / 25 years
Climatic Zone	TS / Severe
Roof Slope	S1-S4 / <5% to 30%
Minimum Substrate Temperature	TL3 / -4 °F (-20 °C)
Maximum Substrate Temperature	TH4 / 194 °F (90 °C)
Usage Loads	P1 / P3