



Waterproofing ALIPHATIC PU CLEARCOAT 1K

Technical Data Sheet

Reviewed: 15.06.2024

DESCRIPTION

ALIPHATIC CLEARCOAT is one component, crystal clear, solvent based, liquid applied waterproofing membrane based on aliphatic PU resins. It is ideal for the most demanding applications of protection and waterproofing of interior and exterior horizontal and vertical surfaces where transparency is required. The special high solids formula forms a 100% waterproof elastic membrane while the surface remains walkable. It ensures a durable long-lasting finish without yellowing.

ADVANTAGES

- Excellent resistance to UV radiation
- Does not yellow
- Forms a walkable uniform seamless membrane
- Elastic and hard at the same time
- Water vapour permeability
- Maintains its mechanical properties over a temperature range of -40°C up to +90°C
- Excellent bonding
- Excellent spreading
- Resistance to chalking – aliphatic technology
- Highly resistant to ponding water
- Good resistance to friction and mechanical stress
- High resistance to water and mild detergents
- Ensures a durable finish
- Resistance to pedestrian traffic
- Highly effective, easily applied

APPLICATIONS

1. Sealing and protection of surfaces where a transparent system is required. Suitable for terraces, balconies, roofs, canopies and walls made of tiles, stone, cement, wood, decorative cement mortars, cement mortars, polycarbonate sheets, glass, metals.
2. Highly recommended for use as a binder and sealer in "Flake Floors", "Stone Carpets" decorative applications in combination with colored quartz, natural stones, etc.
3. Seals broken glass while retaining shards.

INSTRUCTION FOR USE

Substrate preparation

Careful surface preparation is very important for optimum finish and durability.

1. The surface needs to be clean, dry, sound and free of any contamination that may harmfully affect the adhesion of the membrane.
2. Maximum substrate moisture content should not exceed 5%.
3. Old, loose coatings, dirt, fats, oils, organic substances and dust need to be removed by mechanical means such as a sanding machine.

Application

A. TRANSPARENT WATERPROOFING

Priming

1. Apply directly to absorbent surfaces like concrete, cement screed, wood without use of primer.
2. Apply **ADHESIL** to non-porous or difficult surfaces (metal, ceramic tiles, plastics) as an adhesion promoter.

3. Surfaces that exhibit excessive moisture must fully dry before application of **ALIPHATIC CLEARCOAT**.

Application

1. Apply at least two coats of **ALIPHATIC CLEARCOAT** thinned up to 5% with solvent DIL X 100.
2. Wait at least 4 but no more than 24 hours between coats. Do not spread more than 0,4kg/m² on each layer for better results. Total recommended consumption: 0,2 – 1,0kg/m².

B. STONE CARPET

1. Prime the substrate with solvent-free epoxy primer **EPOXITE DRY MAX WET 200** – 350gr/m². While the primer is wet, to achieve better adhesion, apply **M32** quartz sand ~1kg/m².
2. In 12 – 24 hours for temperatures of 30°C and 18°C respectively, the unadhered grains of sand are removed with a broom and the application of the Stone-Carpet resin mortar begins.
3. In a bucket, mix with a low-speed mixer the special aggregates for creating Stone - Carpet (1mm - 4mm grain size) with **ALIPHATIC CLEARCOAT** in a ratio of 10:1 by weight.
4. Once the resin is fully mixed with the aggregates, spread with a smooth trowel on the floor in a thickness equal to at least 3 times the maximum grain size of the aggregates: for aggregate grain size 0.8 – 1.2mm the minimum application thickness is calculated as 3 * 1.2mm = 3.6mm.
5. After 18 to 24 hours apply a sealing coat of **ALIPHATIC CLEARCOAT** to the Stone Carpet floor: ~0.25kg/m².

C. FLAKE FLOOR SEALER

1. Firstly, the **PU-FLEX** system is applied outdoors.
2. After the application of the 1-component aliphatic polyurethane Topcoat **PU FLEX 2000** ~0,2kg/m², and while the surface is still wet, apply the special flakes for "FLAKE FLOOR".
3. After 14 – 24 hours a layer of **ALIPHATIC CLEARCOAT** is applied to seal the flakes ~0,25kg/m².

ATTENTION

For best results, the temperature during coating and curing should be between 15°C and 25°C.

CLEANING

Clean all equipment immediately after use with polyurethane solvent DILX 100

COVERAGE

A. Waterproofing: 0,2 – 1,0kg/m² for two or three layers, depending on substrate's condition.

B. Stone – Carpet: for a 10:1 mixture of aggregates with resin: ~ 1,5kg aggregates & 0,15kg **ALIPHATIC CLEARCOAT** per mm of thickness per m².

C. Flake – Floor sealer: ~0,25kg/m² as a sealing layer

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REMARKS

Surfaces that have been treated in the past with water blocking or stain blocking siloxane water based or solvent based impregnations might cause adhesion problems. It is recommended to test a small area for compatibility prior to full-scale application. The product is intended for professional users only. Packages that have been opened cannot be re-stored. The product must be applied immediately after opening the package. The product contains solvents. Adequate ventilation must be provided when applying indoors. Due to the specificity and diversity of many building surfaces, it is recommended to make a test application on a small surface to check the behavior of the material with the substrate before full – scale application. Must not be used on surfaces with permanent contact with swimming pool water.

TECHNICAL CHARACTERISTICS

Base: Polyurethane prepolymer

Colour: Transparent

Surface membrane formation time: 2 – 3 hours depending on weather conditions

Specific gravity: 1,02 ± 0,1 kg/Lt

Viscosity: 4.000 - 5.000 cps

Elongation at break point (DIN 53504): 150 %

Tensile strength (DIN 53504): 9,50 N/mm²

Hardness SHORE A: >75

Temperature variations resistance: -40°C - +90°C.

Application temperature: +10°C - +35°C.

Adhering ability to concrete (ASTM D903): > 2 N/mm²

Excellent resistance to UV radiation and moisture exposure (QUV-se ACCELERATED WEATHERING CYCLIC CORROSION TESTER)

2000 h accelerated weathering, consisting of the following cycles:

a. 4h UV exposure, at 60°C

b. 4h moisture exposure, at 50°C.

Result: Retains its mechanical properties and elastic performance. No chalking observed.

Light Pedestrian Traffic Time: 24 hours (20° C, 50% RH)

Final Curing time: 7 days (20°C, 50% RH)

VOC (Volatile organic Compounds) CONTENT: (Directive 2004/42/CE) EU maximum VOC content limit values for this product (category A/i(SB): «One-pack performance coatings»): 500 gr/lit (2010). This product contains maximum 490 gr/lit VOCs (ready for use product).

STORAGE

Store in dry and cool storage conditions at temperatures 5°C - 35°C. Protect from moisture and direct sunlight

SHELF LIFE

At least 12 months in unopened containers. Products should remain in their original unopened containers, bearing the manufacturers batch number.

PACKAGING

Transparent: 1Kg & 3Kg

PACKAGING	CODE	BARCODE
1Kg	5322	5204094053224
3Kg	5323	5204094053231

HEALTH AND SAFETY INFORMATION

Consult recent Safety Data Sheet before application.



UFI: ECW0-9030-A006-49NS

The directives contained in this technical data sheet are the result of our long experience from real life applications and the research testing of our research and development laboratory and have been submitted in good faith. Because of the diversity of the materials and substrates and the great number of possible applications, which are beyond our control, we cannot accept any responsibility for the results obtained. In every case it is recommended to carry out preliminary experiments. We are liable only for our products for being free from faults and of consistent quality. Users are responsible for complying with local legislation and for obtaining any required approvals or authorizations. The present edition of this technical datasheet automatically cancels any previous ones concerning the same product.



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