POLIUPLAN LC

TECHNICAL SHEET

LIQUID -APPLIED POLYURETHANE WATERPROOFING MEMBRANE

POLIUPLAN LC is a premium, liquid and cold applied, one-part polyurethane waterproofing membrane. It cures by reaction with ambient moisture to form a strong protective and self-leveling base.

Certificazioni CE EN 1504-2:2005 Conforme a LEED iEQc 4.1 ; SCAQMD Rule 1168 ; BAAQMD Reg 8 Rule 51

Use

- Cost efficient life cycle extension of failing roofs in general from rust, degradation.
- Waterproofing of wet areas (under-tile) in bathrooms, kitchens, balconies, auxiliary rooms, etc.
- Waterproofing in new or existing concrete floor slabs and roofs.

Not suitable for: water tanks, contact with potable water, continuously immersed areas, high pedestrian traffic areas, vehicle traffic areas, bitumen and asphalt surfaces, hin coating or paint-like application. For non exposed use only.

Characteristics Advantages

- One component
- Odorless
- Neutral curing, does not stain, corrode or affect concrete
- Liquid: easy to apply with professional or simple tools, like brush or roller
- Cold applied: in any situation and any climate
- Full surface adhesion and seamless covering, even on curved surfaces
- In combination with non-woven fabric is suitable to cover details, corners, edges
- Compatible with most building materials
- Easy to repair in case of damage
- Paintable

Technical Data

Appearance	Self-leveling paste
Chemical naturen	Polyurethane
Curing mechanism	Moisture-curing
Shore A hardness [N/mm2] (DIN 53505)	ca. 54
Density [g/cc] (NPT method 06) (23°C and 50% RH)	ca. 1,39
Tack-free time [min] (NPT Method 17) (23°C and 50% RH)	ca. 210
Elastic modulus at 100% [N/mm2] (ISO 37 DIN 53504)	ca. 2,2
Tensile strength [N/mm2] (ISO 37 DIN 53504)	ca. 4,0
Elongation [%] (ISO 37 DIN 53504)	ca. 900
Tear resistance propagation [N/mm] (ISO 34-1)	ca. 15
Application temperature [°C]	from +5 to +40
Temperature resistance [°C]	-40/+100, with brief points at +150

Application Method

While preparing the application, please always make sure that:

The substrate is sufficiently clean. If present, joints and voids need filling and sealing with STOP BIT PU sealant. If present, critical surface parts like cracks, expansion joints, and parts that undergo severe stress need the use of a non-woven fabric.

Necessary tools:

- Cleaning equipment (broom, vacuum cleaner)
- Scraper with rubber handle
- Painter's masking tape, gloves, wipes, rubbing alcohol
- Applicator for cartridge
- Spatula, wide or narrow, with teeth
- Quartz sand in a mix of 0,06 – 0,45 mm grain size

Weather and temperatures

Use product stored from +15 ° C to +25 ° C with processing temperature between +5 ° C and +35 ° C. Please consider that at substrate and processing temperatures of about 35 °C the product may flow away from vertical surfaces so a layer thickness of 1 mm is hardly feasible.
While planning the job always check weather forecast so during application and curing no rain precipitation may occur for at least 4 hours. Nevertheless, if rain occours after 4 hours from coat application, skin has safely formed and the product will not be washed away.

Surface appearance and preparation

Surfaces must be clean, dry, free of water, oil, grease, mould releaising agents or rust and of sound quality. As a rule, the substrates must be prepared in accordance with **SYSTEM TECHNOLOGY** guidelines; guidance regarding adhesion on specific surfaces may be obtained by submitting substrate samples for analysis to our Laboratories.
Remove all loose particles or residues with a jet of compressed air, sandpaper or hard brush. Do not apply on edgy or sharp points. Possible surface irregularities need to be smoothened. A good cleaning is determinant for a good adhesion. Always pre-test substrates. On many clean substrates a good adherence can be achieved without adhesion promoter. However, it should always be tested.

Mineral and porous substrates such as concrete, asbestos cement, brick

The substrate must be sound, not crumbling. Dust, dirt and loose particles must be thoroughly removed (broom, vacuum cleaner, shot blasting, grinding, etc.).
If necessary, the surface should be wiped wet. Permanently wet surfaces must be dried before application. Maximum moisture content should not exceed 5%. New concrete structures need to dry for at least 28 days.

Joints, details and cracks preparation

The careful sealing of existing cracks and movement and connection joints before the
application is extremely important for long lasting waterproofing results. Fill all cracks with a sealant from our STOP BIT PU range. If necessary, protect the sealed cracks with non-woven fabric saturated with POLIUPLAN LC, applied even wet on wet on the sealed joint.
To avoid three-sided adhesion and to achieve a suitable dimensioning the joints must be backfilled using closed cell backer rod. Smoothen STOP BIT PU within its skin time using a spatula. Do not use smoothing agent, this may affect the adhesion between STOP BIT PU and POLIUPLAN LC negatively.

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Application on the surface

POLIUPLAN LC is ready for use and can be applied by roller, brush or trowel directly from a pail. In this case make sure that no dirt is brougth into the container. Mask off the area or details using painter's masking tape. Finish the coat by removing the masking tape. After waiting at least 4 hours and no more than 48 hours the second layer can be applied in the same manner as the first coat. If using the non-woven fabric insert, use enough product to cover the fabric that should no longer be visible at the surface.

Top Coat Application

Best UV and abrasion resistance for exposed surfaces can be reached by combining it with LS-coat top coat or other equivalent and compatible systems. A multilayer waterproofing design grants maximum UV resistance and medium to heavy pedestrian traffic. Compatibility test must be carried on before application.
Topping off the wet layer is possible by sprinkling on approx 2-3 kg per square meter of quartz sand in a mix of 0,06 – 0,45 mm grain size, creating a hard covering shell. Quartz sand topping is strongly recommended in demanding application when long lasting service life is expected (more than 2 years) or when high UV resistance and sun reflectivity is required, like in tropical climates.
POLIUPLAN LC may be over-painted, however due to the large number of paints and varnishes available on the market, a compatibility test must be carried on before application. The drying time of alkyd resin based paint may increase.

Consumption

These are the minimum recommended consumes, in order to reach the thickness for the material to be effective

1st Layer: ca. 0,3 kg/m2 diluted to act as primer
2nd Layer: ca. 0,6 kg/m2
3rd Layer: ca. 0,6 kg/m2 as finishing

Surface finishing with quartz sand topping may require an extra layer of 0,2 kg/m2 .

Chemical Resistance

- Good to water, aliphatic solvents, oils, greases, diluted inorganic acids and alkalis 5
- Moderate to esters, ketones and aromatics
- Not resistant to concentrated acids and chlorinated hydrocarbons
- Completely weather-resistant

Cleaning Equipmente

Clean tools with acetone or alcohol immediately after use. Cured material can only be removed mechanically.

Personal Protective Measures

Keep out of reach of children. If skin contact occurs, remove immediately and wash with soap and water.

Storage

POLIUPLAN LC can be stored for 12 months in its original packing (unopened container) at 5°- 25°C in a cool, dry place. The storage temperature should not exceed 25°C for extended periods of time. Keep away from wet areas, direct sunlight and heat sources.

Packaging

Bags of 25 Kg.

The information is provided in good faith and without any guarantee. The application use and processing of these products go beyond our control and therefore our responsibility. The responsibility for incorrect application or for any other reason, for any type of damage,is always limited to the value of the goods supplied by SYSTEM TECHNOLOGY. The products and systems are manufactured to the highest quality standards.