

Syntech Layer

Two-component, protective, transparent aliphatic polyurethane finish



Two-component aliphatic polyurethane finish, UV resistant, transparent, in water dispersion, for finishing concrete surfaces and multilayer resin systems. The finish is available in three versions: Glossy, Satin, Matt. The product is suitable for environments with the presence of food, and can therefore be used to protect walls and ceilings that comply with the HACCP protocol, in order to prevent possible food contamination.

CUSTOMS CODE: 3907 3000

COMPONENTS: Two-components

APPEARANCE: Liquid + Liquid

AVAILABLE COLORS: Transparent

PACKAGING AND DIMENSIONS: Satin: tin 3.1 kg [A] - matt: tin 2.8 kg [A] - Glossy: Tin 6.7 kg [A] - matt: tin 5.5 kg [A] - Satin: tin 6.2 kg [A] - Glossy: Tin 3.3 kg [A] - Glossy: Tin 1.7 kg [B] - matt: tin 2.2 kg [B] - Satin: tin 1.9 kg [B] - Glossy: Tin 3.3 kg [B] - matt: tin 4.5 kg [B] - Satin: tin 3.8 kg [B] - Kit: 1 Glossy: Tin 3.3 kg [A] + 1 Glossy: Tin 1.7 kg [B] - Kit: 1 matt: tin 2.8 kg [A] + 1 matt: tin 2.2 kg [B] - Kit: 1 Satin: tin 3.1 kg [A] + 1 Satin: tin 1.9 kg [B] - Kit: 1 Glossy: Tin 6.7 kg [A] + 1 Glossy: Tin 3.3 kg [B] - Kit: 1 matt: tin 5.5 kg [A] + 1 matt: tin 4.5 kg [B] - Kit: 1 Satin: tin 6.2 kg [A] + 1 Satin: tin 3.8 kg [B]

FEATURES AND BENEFITS

Excellent mechanical and abrasion resistance
 Uniform finish
 Odorless
 Low maintenance over time
 Good resistance to UV and yellowing
 Resistant to atmospheric agents
 Possible non-slip finish
 Wide range of transparent finishes available

PACKAGING DEPENDING ON THE TYPE OF FINISHING CHOICE:

Gloss (Gloss EN ISO 2813: 80 ÷ 90 Gloss Unit)

1 kg kit: 1 can of 0.71 kg [A] + 1 can of 0.29 kg [B]

5 kg kit: 1 x 3.5 kg jar [A] + 1 x 1.5 kg jar [B]

10 kg kit: 1 x 7.1 kg can [A] + 1 x 2.9 kg can [B]

Satin (Gloss EN ISO 2813: 30 ÷ 40 Gloss Unit)

1 kg kit: 1 can of 0.77 kg [A] + 1 can of 0.23 kg [B]

5 kg kit: 1 x 3.8 kg jar [A] + 1 x 1.2 kg jar [B]

10 kg kit: 1 x 7.7 kg can [A] + 1 x 2.3 kg can [B]

Matt (Gloss EN ISO 2813: < 10 Gloss Unit)

1 kg kit: 1 can of 0.73 kg [A] + 1 can of 0.27 kg [B]

5 kg kit: 1 can of 3.65 kg [A] + 1 can of 1.35 kg [B]

10 kg kit: 1 can of 7.3 kg [A] + 1 can of 2.7 kg [B]

FIELDS OF APPLICATION

- It is used as a smooth or non-slip finish and coating, UV resistant, waterproof, abrasion resistant, for concrete and cementitious substrates subject to mechanical stress
- Transparent coating for multilayer systems, particularly suitable for industrial floors in car parks, ramps, warehouses, etc. or concrete infrastructures such as bridges, viaducts, silos, tanks, pylons, etc.
- It can also be applied on steel supports after appropriate preparation and priming of the base
- Its special odorless formulation makes it particularly suitable for applications in closed environments

ALLOWED SUPPORTS

Concrete - Resin coatings

PREPARATION OF SUPPORTS

Concrete

The surfaces to be coated must be stable, clean and free of substances that could affect the adhesion of the coating, such as dirt, grease, oil, residues of coatings and surface treatments, etc. The weak parts must be removed before applying the product by mechanical sanding with diamond discs and vacuum cleaning.

The tensile strength of the concrete must not be less than 1.5 N/mm².

Resin coatings

The surfaces to be covered must be stable, clean and free of substances such as dirt, grease, oil, etc. which can affect the adhesion of the coating. Smooth the surface by mechanical sanding with diamond discs and vacuum. It is recommended to wash the surfaces and let them dry completely before applying the finish.

Primers

Concrete

The application of SYNTECH LAYER must always be preceded by the application of a coat of SYNTECH PAVISHEER water-based epoxy anchoring primer diluted with clean water in the ratio 1:1 by weight.

Resin coatings

The application of SYNTECH LAYER must always be preceded by sanding the entire surface in order to promote and guarantee optimal adhesion of the product to the support.

MODE OF USE

Mixing

Before mixing, briefly shake components A and B until completely homogeneous. Combine the two components in the indicated mixing ratio. Add component B (hardener) to component A (base) and mix thoroughly until the product is completely homogenised. It is advisable to start mixing briefly with an electric drill at low speed and then intensify the stirring up to a maximum of 300-400 rpm. Once mixed, a colored emulsion is formed which must be immediately diluted, always under mechanical stirring, by adding a maximum of 20÷25% by weight of clean water according to the intended use.

Application

The product can be applied evenly by spray or short-haired roller to avoid accumulations of material which could give rise to aesthetic defects. A more uniform finish is obtained by overlapping with the product to be laid all the layers fresh on fresh along the edges of the areas of material already laid. To obtain a homogeneous finish free from application defects, we recommend spraying the finish without contact. In this way it is possible to preserve the structure of the original surface, avoiding the possible formation of traces due to the passage of the brush or roller. Apply one or more coats of SYNTECH LAYER, taking care to respect the indicated consumption and thickness.

Non-slip finish

To obtain a finish with non-slip properties, add a maximum of 5% by weight of SYNTECH MICROPOLY to the finish (choose the type based on the desired degree of anti-slip). Mix the two products carefully then apply the finish with a short-haired roller. The anti-slip additive tends to settle quickly on the bottom of the container, therefore once added to the finish, it is necessary to stir it frequently during the installation operations in order to carry out a homogeneous application and avoid the alternation of poor areas and areas with excessive accumulations of particles. The addition of SYNTECH MICROPOLY can slightly change the final brilliance of the film.

APPLICATION METHODS




Paint roller



TOOL CLEANING

Syntech Diluente Poliuretano



KEY FEATURES

-  Shelf-life: 12 months
-  To be applied in two coats
-  UV-resistant

-  Temperature of use: +5 / +30 °C
-  Use wearing protective gloves

TECHNICAL SPECIFICATIONS

EN 1542

Adhesion by direct traction $\geq 4 \text{ N/mm}^2$

Persoz EN ISO 1522

Hardness **205 \pm 5 s**

EN 1062-6

Permeability to CO₂ **Sd > 150 m**

EN 2812-1

Resistance to particular washing agents (detergent A, B, C) **No alteration**

EN 13529

Resistance to severe chemical attacks **See table**

EN ISO 5470-1

Taber abrasion resistance expressed as weight loss in grams (H22 wheel - 1000 g - 1000 rpm) **< 3.000 mg**

Dry residue **53 %**

Complete hardening at 20°C **7 day**

< 500 g/l

EN 1198

Thermal compatibility after cooling shocks - storm cycles **No alteration**

EN ISO 7783-1

Permeability to water vapor **Sd < 1 m**

EN 10792

Dirty grip **ΔL 0.94 %**

EN 2812-1

Resistance to particular disinfection agents (detergent D) **No alteration**

EN 1198

Resistance to washing **Ldft 0.38 μm**

EN ISO 6272-1

Impact resistance **> 4 Nm**

Touch hardening at 20°C **2 h**

Working temperature **-20 / +70 °C**

CONSUMPTION

From 0.10 to 0.13 kg of Syntech Layer for each square meter of surface.

STORAGE AND CONSERVATION

Protect from freezing. Store the product in its original packing, in a fresh and dry environment, avoiding frost and direct sunlight. Protect from humidity. Store the product at a temperature between +10°C and +30°C.



ADDITIONAL CONTENT

Workability time

10°C	20°C	30°C
150'	120'	90'

Waiting time on your hands

	10°C	20°C	30°C
Minimum	8h	6h	5h
Maximum	24h	24h	24h

Thickness

	minimum	maximum	recommended
Dry	50 mm	65 mm	60 mm
Wet	100 mm	130 mm	120 mm

Commissioning

Temperature	Walkability	Light Traffic	Heavy Traffic
15 °C	24 h	48 h	72 h
20 °C	24 h	36 h	48 h
30°C	12 h	36 h	48 h

WARNINGS AND PRECAUTIONS

The general information, along with any instructions and recommendations for use of this product, including in this data sheet and eventually provided verbally or in writing, correspond to the present state of our scientific and practical knowledge. Any technical and performance data reported is the result of laboratory tests conducted in a controlled environment and thus may be subject to modification in relation to the actual conditions of implementation.

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