POLYECO-STN

Waterbourne Polyurethane Satin Top Coat

DESCRIPTION

Polyeco-STN is a high performance, waterborne polyurethane satin top coat designed to provide a durable, chemical resistant, and UV stable finish for industrial and commercial flooring systems. It forms a smooth, satin surface that enhances the appearance of epoxy and polyurethane base layers while improving cleanability and long term protection.

The formulation offers excellent resistance to abrasion, yellowing, and everyday wear, ensuring a lasting finish in both dry and lightly humid environments. **Polyeco-STN** is low in odour, environmentally friendly, and easy to apply by roller or brush, making it suitable for occupied areas or projects where minimal disruption is essential.

Features & Benefits

- **Smooth satin finish with uniform appearance**
- **Excellent chemical and abrasion resistance**
- **Low odour, waterborne formulation**
- **Non yellowing and colour stable**
- **Environmentally friendly, low VOC composition**
- **Provides long term surface protection**
- **Easy to clean and maintain**

Packaging Kit

Polyeco-STN is supplied in pre-weighed units to ensure correct mixing ratios:
4 kg unit (Part A + Part B)
15 kg unit (Part A + Part B)

Coverage

Typical consumption is **0.12–0.15 kg/m² per coat.**
A 5 kg unit will cover approximately 35–40 m² per coat.

Coverage may vary depending on substrate porosity, surface profile and application method.

Environmental Conditions

Application should take place between 10 °C and 30 °C with substrate temperature at least 3 °C above the dew point. Ambient relative humidity should not exceed 75 % during application and for the first 48 hours of curing. Adequate ventilation is required to promote uniform curing.

Installations outside of these parameters may affect curing time, surface appearance and long term performance. For concrete bases in direct contact with the ground, a damp proof membrane should be incorporated into the slab design in accordance with CP102 Code of Practice for Protection of Buildings Against Water from the Ground.

Substrate Requirements

Concrete substrates must achieve a compressive strength of at least 25 N/mm² and a tensile strength above 1.5 N/mm². Substrates must be dry (maximum 75 % RH, unless a moisture tolerant primer is used), clean, sound and free from laitance, dust, oils, grease, curing agents or contaminants. Mechanical preparation such as shot blasting or grinding is recommended.

Priming Requirements

Polyeco-STN should always be applied over a primer to ensure full adhesion:

- Dry substrates (<75 % RH): apply **EPR-100 Solvent Free Epoxy Primer.**
- Damp substrates (>75 % RH): apply **DPM-230 Moisture Tolerant Epoxy Primer.**

Highly porous surfaces may require two primer coats.

Mixing

All components should be conditioned to 15 °C – 25 °C before use. Part A (Resin) is poured into a clean container and Part B (Hardener) is added. The two parts are mixed using a slow speed drill (300–400 rpm) until a uniform blend is achieved. The mixed product must be applied immediately.

Product Application

Apply **Polyeco-STN** immediately after mixing using a short pile roller at a coverage rate of 120–150 g/m² per coat. Apply in thin, even layers, maintaining a wet edge to prevent roller marks or overlap lines. Avoid excessive film build, as this may cause blistering or loss of clarity. Two coats are recommended for optimum finish and durability.

Appearance

Satin finish available in a wide range of standard colours according to the Jofa Resins colour chart. Bespoke RAL colours may be supplied on request.

Chemical Resistance

Polyeco-STN exhibits excellent resistance to a wide range of oils, salts, alkalis, and dilute acids, Prolonged exposure to strong solvents or aggressive chemicals should be avoided to maintain surface appearance and satin.

Product Confines

Polyeco-STN Application should not proceed if the relative humidity exceeds 75% or if the substrate temperature is less than 3°C above the dew point. Ambient and substrate temperatures must remain between 10°C and 25°C during application and curing.

Low temperatures will extend drying times, while high temperatures can reduce working life. Minor variations in satin level may occur due to environmental conditions, film thickness, or application technique.

Cleaning

Polyeco-STN floors should be maintained through regular cleaning using scrubber dryers or rotary machines fitted with soft pads, together with a neutral pH cleaning solution diluted in warm water. Daily sweeping or vacuuming is recommended to remove dust and grit that may cause abrasion of the surface. Spills of oils, foodstuffs or chemicals should be removed promptly with a damp mop to prevent surface staining.

For periodic maintenance, a mild neutral detergent may be used followed by rinsing with clean water. Abrasive powders, steam cleaners, highly alkaline or acidic products must be avoided as they can dull or damage the satin finish.

Health & Safety

Refer to the Safety Data Sheet (SDS) before use. Applicators must wear appropriate PPE including chemical resistant gloves, safety glasses and respiratory protection in poorly ventilated areas.

Disposal of Containers

Empty containers must be treated with the same precautions as full ones and disposed of via an authorised hazardous waste contractor.

Any remaining Part A and B should be mixed together and allowed to cure before disposal.

Additional Information

Jofa Resins endeavour to ensure that all product guidance provided is accurate and correct. Information given by or on behalf of Jofa Resins is based on tests and installations and on our current knowledge and experience. It implies no warranty or guarantee arising from the use of its products as the substrate and site conditions and the actions of any installation team involved in product application is beyond our control. Whether or not in accordance with any advice, recommendation, specification, or information given by Jofa Resins.

Jofa Resins products are guaranteed against defective materials and manufacture and are sold subject to our standard terms and conditions of sale, copies which can be obtained upon request.

Please contact the Jofa Resins Technical Department for further assistance.

TECHNICAL INFORMATION

Shelf Life	12 Months when stored in unopened containers under proper conditions.
Pot Life Temp 20°C	120 Minutes
Curing Schedule 20°C	**Recoat:** 6-24h • **Foot traffic:** 24 h • **Light traffic:** 48 h • **Full cure**: 7 days
FeRFA Floor Guide	Type 1
Storage	This Product must be stored off the ground in original packaging, unopened and un-damaged. The ambient conditions must be dry and between 10°C and 30°C with no direct sunlight. Protect from frost.
Shore Hardness	55D Colourless
Density	**Part A:** ~1.03 g/cm³ (colourless) **Part B:** ~1.15 g/cm³
Fire Classification EN 13501-1	B_{fl}-s1
Adhesion Strength EN 13892-8	>2.5 N/mm²

The above values, based on laboratory tests and our practical experience with this product, represent typical properties measured under standard laboratory conditions of 20 °C and 50 % relative humidity.

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