

PURETHAN

2-component polyurethane topcoat

PURETHAN is a two-component acrylic polyurethane topcoat, solvent-based, cross-linked with an aliphatic isocyanate hardener. It has been specifically tested for the weather protection of intumescent coatings CHAR 21, CHAR 21Plus and CHAR 22.

With a semi-gloss satin appearance, it provides excellent resistance to water and chemicals and forms a moisture barrier essential for the durability of intumescent coatings in outdoor environments.

It must be applied at the prescribed thickness after complete drying of the intumescent layer. For exposure in fully outdoor environments (Class X), two cross coats are recommended (total dry film thickness 80-100 μm), taking the utmost care to avoid defects (pin-holes, low thickness areas, cracking at edges or around bolts).

Application instructions and good practice must be followed, paying attention not to exceed the allowed application time after mixing (pot-life). The application environment must not be too cold and relative humidity must be below 80%. Dew point and substrate temperature must also be checked to ensure that no condensation is present.

Once in service, the durability of the system depends on the absence of defects in the dry film. Adequate maintenance is therefore required, repairing scratches or initial blistering with touch-ups using the same PURETHAN product.

TECHNICAL CHARACTERISTICS

Density (kg/dm ³)	1.25
Solids content	74% w/w – 62% v/v
Viscosity (Brookfield)	Thixotropic
Mixing ratio	base/hardener = 100/20 by weight
Minimum/maximum application temperature	+10 °C / +30 °C
Application method	Brush, roller, airless spray
Thinning	5–10% (brush), 5–15% (spray), 0–10% (airless)
Pot-life	8–10 hours at 20 °C
Full drying	24 hours
Recommended dry film thickness	60–100 μm
Gloss (60°)	50–70
Shelf life	1 year (+5 °C / +40 °C, sealed containers, not exposed to sunlight, protected from frost)
Coverage	8.3 m ² /kg – 10.2 m ² /l
Colour	White (tintable)

Compatibility and durability tests with our intumescent coatings, as required by ETAG 018 / EAD 350402-00-1106 and performed at TECNALIA, demonstrated durability in Class X (fully exposed outdoor environment) for CHAR 21 (water-based) and CHAR 22 (solvent-based).

TEST AND CLASSIFICATION REPORTS

ETAG 018 / EAD 350402-00-1106	Tecnalia 26959-A
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The above information is derived from current standards at the present date and based on certified measurements of our product properties; however, it does not constitute certification of the system, structure, or construction. Evaluation of the overall system remains the responsibility of the fire safety expert.

This information represents the result of extensive testing and our best experience. Nevertheless, it should be considered indicative due to the extreme variability of operating conditions. We recommend carrying out application trials and confirm the full availability of our technical service.

IRIS Coatings S.r.l. - Via Novi 42, 15060 Basaluzzo (AL), Italia
info@iriscoatings.it - www.iriscoatings.it