

CRYSTIC[®] Topcoat 506PA White

White Pigmented Isophthalic-NPG Polyester Topcoat

Introduction

Crystic Topcoat 506PA White is a pre-accelerated Topcoat with excellent water and weather resistance, designed for use in the marine and building industries. It is based on a high quality isophthalic-NPG polyester resin. It has been formulated for application by roller or brush. It is pigmented using a highly UV resistant grade of titanium dioxide.

Applications

Crystic Topcoat 506PA White is recommended as a finishing coat for GRP lined swimming pools. It is also suitable for all general moulding requirements where the back of the laminate needs to be protected from water or mild chemical attack.

Formulation

Crystic Topcoat 506PA White should be allowed to attain workshop temperature (18°C-20°C) before use. Stir well by hand, or with a low shear mixer to avoid aeration, and then allow to stand to regain thixotropy. Crystic Topcoat 506PA White requires only the addition of catalyst to start the curing reaction. The recommended catalyst is Norox[®] KP9, and this should be added at 1-3% into the Topcoat. (Please consult our Technical Service Department if other catalysts are to be used). The catalyst should be thoroughly incorporated into the Topcoat, with a low shear mechanical stirrer where possible.

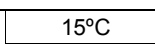

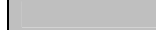
Care should be taken to ensure that the Crystic Topcoat 506PA White is correctly formulated for use. Undercatalysation brings a risk of failure as a protective coating, Should the ambient temperature during application be so high as to result in an unworkably short potlife, consider reducing the mix size rather than reducing catalyst levels below 1%. Avoid working under hot midday conditions. Too fast a film gel time (it should not gel as a film in less than 15 minutes) may result in air entrapment. This may cause problems due to osmosis.

Pot Life

The geltime, and hence pot life, of Crystic Topcoat 506PA White varies with temperature and level of catalyst. Table 1 shows this relationship.

Table 1: Geltime in minutes of Crystic Topcoat 506PA White at varying temperatures, with 2% Norox KP9 catalyst

 = Combination not recommended.

Catalyst type		Norox KP9		
		1%	2%	3%
Catalyst addition		Geltime in minutes		
Temperature	15°C		45	30
	25°C	24	11	
	35°C	11	6	

The Topcoat, pool/moulding and ambient temperature should all be at or above, 15°C before curing is carried out. Scott Bader (Pty) Ltd. will not be liable for problems caused by use at lower temperatures than recommended.

N.B. Peroxide catalysts are highly reactive and may decompose with explosive violence, or cause fires, if they come into contact with flammable materials, metals or accelerators. For this reason they must never be stored in metal containers or be mixed directly with accelerators.

Application

Crystic Topcoat 506PA White is designed for application by brush or roller to the back of GRP laminates or the water contact surface of in-situ GRP lined swimming pools, in order to protect the fibres from water attack and to provide an attractive finish. Coverage is affected greatly by the evenness of the laminate. Measures taken to achieve a smooth finish, such as sanding or the use of surface tissue, will reduce the amount of Crystic Topcoat 506PA White required to cover the surface. In normal use, the application should be controlled to 0.5-0.6 mm wet film thickness. As a guide, approximately 500-700 g/m² of Topcoat mixture will give the required thickness when evenly applied.

Additives

The addition of fillers to Crystic Topcoat 506PA White can adversely affect the water and weather resistance of the cured Topcoat, and should be avoided.

Coloured Topcoats

Should coloured Topcoat be required, Crystic Topcoat 506PA can be supplied in a range of colours. However, only pastel shades are recommended for swimming pools. Dark colours are prone to excessive heat absorption from the sun and this may interfere with the cure of the Topcoat.

Typical Properties

The following tables give typical properties of Crystic Topcoat 506PA White.

Table 2: Typical properties of liquid Crystic Topcoat 506PA White.

Property	Units	Nominal value
Appearance		White, opaque
Viscosity @ 25°C, Brookfield RVT @100 rpm	centipoise	3000
Thixotropic index	ratio	3.5
Geltime at 25°C using 2% Norox KP9 catalyst	minutes	11
Stability in the dark @ 20°C	months	3

Table 3: Typical properties of cast Crystic Topcoat 506PA, unfilled, filtered cast base resin

Property	Units	Nominal value
Deflection Temp. under load† (1.80 MPa)	°C	92

†Curing Schedule - 24 hrs @ 20°C, 5 hrs @ 80°C, 3 hrs @ 120°C.

Storage

Crystic Topcoat 506PA White should be stored in the dark in suitable, closed containers. It is recommended that the storage temperature should be less than 20°C where practical, but should not exceed 30°C. Ideally, containers should be opened only immediately prior to use. Where they have to be stored outside, it is recommended that drums be kept in a horizontal position to avoid the possible ingress of water. Wherever possible, containers should be stored under cover.

Packaging

Crystic Topcoat 506PA White is supplied in 25kg and 225kg containers.

Health and Safety

Please see the applicable Material Safety Data Sheets, depending on the curing system used.

Technical Leaflet No. SBPTY051.5
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Before you use this information, kindly verify that this data sheet is the latest version.

All information is given in good faith but without warranty. We cannot accept responsibility or liability for any damage, loss or patent infringement resulting from the use of this information.

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