

CRYSTIC[®] GELCOAT 6100PA WHITE

Flexible Brush Gelcoat with Low Styrene Emission

Introduction

Crystic Gelcoat 6100PA White is a pre-accelerated, isophthalic gelcoat. It has been formulated for brush application.

Applications

Crystic Gelcoat 6100PA White is designed for general use in brush gelcoat applications.

Features and Benefits

Crystic Gelcoat 6100PA White is a flexible, low styrene gelcoat maintaining excellent exterior weather resistance, containing 20% styrene. It emits very low levels of atmospheric styrene in the workplace and is part of Scott Bader's Crystic[®] Green system. It has excellent brush feel and is very easy to apply in a smooth, even layer.

Formulation

Crystic Gelcoat 6100PA White should be allowed to attain workshop temperature (18°C - 30°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 Gelcoat 6100PA White requires only the addition of catalyst to start the curing reaction. The recommended catalysts are Andonox[®] KP9 and Norox[®] MEKP-925H, which should be added according to the recommendations in the table below. (Please consult our Technical Service Department if other catalysts are to be used).


The catalyst must be stirred thoroughly into the gelcoat shortly before use. Curing should not be carried out at temperatures below 15°C. Scott Bader (Pty) Ltd. will not be liable for problems caused by use at lower temperatures than recommended. The gelcoat must be allowed to attain workshop temperature (15 - 30°C) before being formulated for use.


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.

Pot Life

The temperature, and the amount of catalyst affect the geltime, and hence pot life, of Crystic Gelcoat 6100PA White. Recommended catalyst levels are shown below.

Levels of catalyst to achieve geltime of approximately 10-20 minutes in Crystic Gelcoat 6100PA White.

 = Combination not recommended.

Catalyst Type		Andonox [®] KP9	Norox [®] MEKP-925H
Temperature	35°C	1%	1.5%
	25°C	2%	2.5%
	15°C	3%	

Application

For normal moulding, the application of Crystic Gelcoat 6100PA White should be controlled to 0.4-0.6 mm (0.015-0.022 inch) wet film thickness. As a guide, approximately 700-800 g/m² of gelcoat mixture (depending on pigment) will give the required thickness when evenly applied.

Do

- Use clean brushes and containers.
- Ensure that the gelcoat is well stirred in its container before measuring quantities for use.
- Measure catalyst carefully and thoroughly stir it into the gelcoat.
- Ensure that the mould temperature is close to that of the gelcoat. Even if the gelcoat is kept warm in its container, applying it to a cold mould will absorb all the heat and cause it to cure slowly. Applying cold gelcoat with an appropriate catalyst level to a warm mould will result in too fast a film geltime and possibly cause pinholes.
- Brush the gelcoat onto the mould using even, long, vigorous strokes, dipping the brush into the gelcoat often. As a rule, each brush load should cover the length of your forearm.
- Ensure that the gelcoat is well sheared by the brush when applying it. The bristles must touch the mould surface.
- Touch up thin patches by adding extra gelcoat, not by brushing over from the gelcoat nearby.

Don't

- Use brushes contaminated with cleaning solvents or moisture.
- Brush the gelcoat out too far – it is designed to be applied at 0.5mm thickness with the proper brush technique.
- Apply too thick a layer – this can cause pre-release.
- Mix fillers into the gelcoat.
- Thin with styrene, acetone or thinners.
- Allow puddles and blobs of gelcoat to accumulate on the mould, or pour it onto the mould and use this as a reservoir for brushing. This may cause pinholes.
- Begin laminating too soon. The back-up time will vary with temperature, but a good test is to touch the back of the gelcoat with a thumb. It will feel tacky but none should transfer to the skin.
- Use low catalyst levels in order to give a longer pot life. This can result in undercure. Rather mix smaller quantities so they can be used up within the pot life.
- Use material from one batch of gelcoat to repair a part made from another, or use different batches on a single part. Scott Bader controls the colour of its white gelcoats to a very close tolerance but if one batch is put next to another with nothing to separate them, even this tight tolerance may not prevent a slight line being visible.

Additives

The addition of fillers to Crystic Gelcoat 6100PA White is not recommended as it can adversely affect the performance of the cured gelcoat. Crystic Gelcoat 6100PA White can be used as a topcoat provided that 2% Crystic Solution W010 is added to overcome the normal tackiness.

Physical Data - Uncured

The following table gives typical properties of Crystic Gelcoat 6100PA White when tested in accordance with BS2782.

Property	Units	Liquid Gelcoat
Appearance		White Viscous Liquid
Viscosity at 25°C (Brookfield RVT; sp 6 at 100rpm)	Cps	5400
Thixotropic Index	Ratio	4.15
Specific Gravity at 25°C		1.31
Styrene Content	%	20.1
Geltime at 25°C Using 2% Andonox® KP9	Minutes	10
Stability at 20°C	Months	3

Post Curing

Satisfactory laminates for many applications can be made with Crystic Gelcoat 6100PA White by curing at workshop temperature (25°C). However, for optimum properties, laminates must be post-cured before being put into service. The moulding should be allowed to cure for 24 hours at 25°C, and then be oven-cured for 3 hours at 80°C.

Storage

Crystic Gelcoat 6100PA 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 outdoors, 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 Gelcoat 6100PA White is supplied in 25Kg and 225Kg containers.

Health and Safety

Please see separate Material Safety Data Sheet.

Technical Leaflet No. SBPTY090.0

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