

CRYSTIC[®] 1355PA

Introduction

Crystic 1355PA is a pre-accelerated, filled, fire retardant polyester resin which has been designed for contact moulding applications. It has been formulated as an inexpensive resin and wets out the reinforcement rapidly. Crystic 1355PA is supplied in a restricted range of colours and the information contained in this leaflet also applies to these pigmented versions.

Approvals

Crystic 1355PA can achieve a Class 1 rating to BS476 part 7:1987

Formulation

Crystic 1355PA 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 1355PA requires only the addition of a catalyst to start the curing reaction. The recommended catalyst is Catalyst M (or Butanox M50), which should be added at 1% into the resin. Catalyst O (or Interlox LA3) will increase the pot life. The catalyst should be thoroughly incorporated into the resin, with a low shear mechanical stirrer where possible.

Pot Life

Temperature	Pot life in Minutes	
	Catalyst M	Catalyst O
15°C	40	95
20°C	26	47
25°C	18	33

The resin, mould and workshop should all be at, or above, 15°C before curing is carried out.

Additives

Crystic 1355PA is supplied in a restricted range of colours. This eliminates the potential for mixing errors with small quantities of pigment pastes. We do not recommend the addition of pigment paste to Crystic 1355PA, due to the difficulty in obtaining specific colours. The addition of any pigment or other additives may affect the properties of the resin.

Typical Properties

The following tables give typical properties of Crystic 1355PA when tested in accordance with BS2782

Property		Liquid Resin
Appearance		White to pinkish
Viscosity at 25°C 37.35 sec ⁻¹	poise	4.5
Viscosity at 25°C 4500 sec ⁻¹	poise	3.4
Specific Gravity at 25°C		1.4
Volatile Content	%	30
Stability at 20°C	months	3
Geltime at 25°C using 1% Catalyst M (Butanox M50)	minutes	18
Property		Fully cured* Resin (unfilled casting)
Barcol Hardness (GYZJ 934-1)		57
Deflection Temperature under load † (1.80 MPa)	°C	80
Water Absorption 24hrs at 23°C	mg	14
Tensile Strength	MPa	50
Tensile Modulus	MPa	6400
Elongation at Break	%	1.1

*Curing schedule - 24hrs at 20°C, 3hrs at 80°C

†Curing schedule - 24hrs at 20°C, 5hrs at 80°C, 3hrs at 120°C

Property		CSM ** Laminate
Glass Content	%	28.6
Tensile Strength	MPa	82
Tensile Modulus	MPa	6900
Elongation at Break	%	1.6
Flexural Strength	MPa	151
Flexural Modulus	MPa	6000

**Made with 4 layers 450g/m² CSM.

Curing schedule 24 hrs at 20°C, 16hrs at 40°C

Storage

Crystic 1355PA 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 they are kept in a horizontal position to avoid the possible ingress of water.

Packaging

Crystic 1355PA is supplied in 25kg and 200kg containers.

Health and Safety

Please see separate Material Safety Data Sheet.

Technical Leaflet No. 160.2

Version 2 : February 2013

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