

CRYSTIC[®] VE679-03PA

DCPD - Modified Vinyl Ester Resin for Infusion

Introduction

Crystic VE 679-03PA is a pre-accelerated, DCPD modified, vinyl ester resin.

Applications

Crystic VE 679-03PA was developed for use as a infusion resin with a wide range of gel times with various catalysts.

Features & Benefits

Crystic VE 679-03PA has excellent blister resistance and significantly reduces the occurrence of print through, to produce durable mouldings with an enhanced surface finish.

Approvals

Crystic VE 679-03PA produced at Scott Bader's Wollaston UK facility, is approved by Lloyd's Register of Shipping for use in the construction of craft under their survey.

Product Characteristics

FORMULATION

Crystic VE 679-03PA must be thoroughly stirred and allowed to attain workshop temperature (18 °C – 20 °C) before use. It needs only the addition of a catalyst to start the curing reaction. The recommended catalyst is Trigonox 249, which should be added at 2 % into the resin. The geltime of Crystic VE 679- 03PA can be approximately determined from the table below.

Pot Life

Temperature	Pot Life in Minutes Using 2% Trigonox 249
15°C	195 minutes
20°C	120 minutes
25°C	80 minutes

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

Additives

The addition of pigment, fillers or other additives may adversely affect the resin properties. Users should consult Scott Bader's Technical Service Department before making any such additions.

Typical Properties

The following tables give typical properties of Crystic VE 679-03PA when tested in accordance with the appropriate BS or BS EN ISO test method.

Property		Liquid Resin
Appearance		Red/ Brown
Viscosity at 25°C 4500sec-1	Poise	1.8 / 2.0
Specific Gravity @ 25°C		1.065
Stability from date of manufacture when stored in accordance with storage recommendations.	Months	6
Geltime at 25°C using 2 % Trigonox 249	Minutes	80

Property		Fully Cured Resin (unfilled casting)	
		*	**
Barcol Hardness (GYZJ 934 - 1)		22	34
Deflection Temperature under load (1.80 MPa) †	°C	58	97
Tensile Strength	MPa	53	64
Tensile Modulus	GPa	4.9	3.35
Elongation at Break	%	2.27	2.27

* Curing Schedule - 24hrs @ 20 °C, 16hrs @ 40 °C

** Curing Schedule - 24hrs @ 20 °C, 3hrs @ 80 °C

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

Storage

Crystic VE679-03PA should be stored between 5°C and 25°C in the original, unopened container in a dry, well ventilated place. Protect from freezing and direct sunlight. Avoid contact with oxidising agents. If stored outside of these recommendations, shelf life will be significantly reduced.

Packaging

Crystic VE 679-03PA can be supplied in 25kg kegs, 200kg drums and 1100kg IBCs

Health & Safety

Please see separate Materials Safety Data Sheet.

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