

# CRYSTIC<sup>®</sup> VE 679-03PA

## 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 and 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.

### 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 <sup>-1</sup>	Poise	1.7 – 2.0
Specific Gravity at 25°C		1.065
Stability at 25°C	months	3
Geltime at 25°C using 2 % Trigonox 249	minutes	80

Property		Fully Cured Resin (unfilled casting)	
		*Cure	**Cure
Barcol Hardness (GYZJ 934 - 1)		22	34
Deflection Temperature under load (1.80 MPa) <sup>†</sup>	°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 at 20 °C, 16hrs at 40 °C

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

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

### Storage

Crystic VE 679-03PA 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.

### Packaging

Crystic VE 679-03PA is supplied in 25kg and 200kg steel containers.

### Health and Safety

Please see separate Materials Safety Data Sheet.

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