CRYSTIC 500PA

Introduction
Crystic 500PA is a pre-accelerated, orthophthalic polyester resin. It is a general purpose resin and has been specifically designed for non-critical and industrial applications. It is not suitable for boat construction, chemical resistance or mouldings in contact with food products.

Product Characteristics

Formulation
Crystic 500PA 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 500PA requires only the addition of catalyst to start the curing reaction. The recommended catalyst is Butanox M50 (or equivalent), which should be added at 1.5 % into the resin. (Please consult our Technical Service Department if other catalysts are to be used). The catalyst should be thoroughly incorporated into the resin with a low shear mechanical stirrer where possible.

Pot Life

Temperature	Pot Life in Minutes
25 °C	25

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

Application
Crystic 500PA is designed for hand laminating and should be used with chopped strand mat. Higher specification reinforcements are not recommended.

Additives
The addition of filler can adversely affect the hardening of the resin. Users should evaluate the effect of any potential additives before use.

Post Curing
Satisfactory laminates for most non-critical applications can be made with Crystic 500PA by curing at workshop temperature (20 °C).

Typical Properties
The following tables give the minimum expected properties of Crystic 500PA when tested in accordance with BS 2782.

Property		Liquid Resin
Appearance		Pink bit free
Viscosity at 25 °C		Thixotropic
Specific gravity at 25 °C		1.12
Volatile content	%	40
Stability in the dark at 20 °C	months	3
Geltime at 25 °C using 1.5 % Butanox M50 (or equivalent)	minutes	25

Property		Fully cured* resin (unfilled casting)
Barcol hardness (Model GYZJ 934-1)		46
Deflection temperature under load† (1.80 MPa)	°C	70
Tensile strength	MPa	65.7
Tensile modulus	MPa	3700
Elongation at break	%	2.4

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

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

Storage

Crystic 500PA 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 containers are kept in a horizontal position to avoid the possible ingress of water.

Packaging

Crystic 500PA is supplied in 25 kg and 200 kg containers.

Health and Safety

Please see separate Material Safety Data Sheet.

January 2013