

CRYSTIC[®] 2- 8500PA

Introduction

Crystic 2-8500PA is a low styrene emission, pre-accelerated, orthophthalic polyester resin, which rapidly wets out reinforcements. 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. Crystic 2-8500PA is available in several colours and the information contained in this leaflet also applies to these pigmented versions.

Formulation

Crystic 2-8500PA 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 2-8500PA requires only the addition of catalyst to start the curing reaction. The recommended catalyst is Catalyst M (or Butanox M50), which should be added at 1% 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
Pot life in minutes at 15°C	42
Pot life in minutes at 20°C	22
Pot life in minutes at 25°C	17

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

Applications

Crystic 2-8500PA is designed for hand laminating and would normally be used with chopped strand mat. Higher specification reinforcements are not recommended.

Additives

The addition of filler or pigments 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 2-8500PA by curing at workshop temperature (20°C).

Typical Properties

The following tables give the minimum expected properties of Crystic 2-8500PA when tested in accordance with BS 2782.

Property		Liquid Resin
Appearance		Greenish blue
Viscosity at 25 °C		Thixotropic
Specific Gravity at 25 °C		1.12
Volatile Content	%	43
Stability at 20 °C	months	3
Geltime at 25 °C using 1% Catalyst M (or Butanox M50)	minutes	17
Property		Fully Cured* Resin (unfilled casting)
Barcol Hardness (Model GYZJ 934-1)		42
Deflection Temperature under load † (1.80 MPa)	°C	67
Water Absorption 24 hours at 23°C	mg	15
Tensile Strength	MPa	50
Tensile Modulus	MPa	3800
Elongation at Break	%	1.5

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

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

Property		C.S.M** Laminate
Tensile Strength	MPa	98
Tensile Modulus	MPa	7600
Elongation at Break	%	1.7
Flexural Strength	MPa	190
Flexural Modulus	MPa	7400

** Made with 4 layers 450g/m² PB CSM
Curing schedule – 24 hours at 20°C, 16 hours at 40°C

Storage

Crystic 2-8500PA 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 2-8500PA is supplied in 25kg and 225kg containers.

Health & Safety

Please see separate Material Safety Data Sheet.

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