

CRYSTIC[®] 125PA

General Purpose Polyester Resin

Introduction

Crystic 125PA is a quality orthophthalic based unsaturated polyester resin developed specifically for the manufacture of GRP mouldings.

Crystic 125PA is a polyester resin of medium viscosity which meets the requirements of BS3532 : 1990, as a Type "A" resin. It can also be used for flat surface laminations.

Laminates made with Crystic 125PA have good mechanical strength, high rigidity and impact resistance, and excellent dimensional stability. Its curing properties make it especially suitable for fast production processes when used with the recommended curing system.

Formulation

Crystic 125PA may be used in the following cold curing formulations:

Parts by Weight	Formulation
	No.1
Crystic 125PA	100
Catalyst M	2

Curing

Crystic 125PA requires only the addition of catalyst to start the curing reaction. It should be thoroughly dispersed in the resin. The accelerated resin without catalyst will usually remain usable at ambient temperature (25°C) for approximately 3 months. Shortly before use, the correct amount of catalyst should be added and stirred thoroughly into the mixture. When catalyst is added to resin which has been accelerated for several days, the pot life may be shorter than that of freshly accelerated resin.

Typical Properties

Properties		Liquid Crystic 125PA
Appearance		Cloudy, Pinkish
Viscosity at 25°C CPS (Brookfield LVF SP3, 60 RPM)		500
Acid Value	Mg KOH/g	21
Solid Content	%	59
Styrene Content	%	41
Stability at 25°C	months	3
Gel time at 25°C using 100g Crystic 125PA and 2 ml Catalyst M	minutes	17
Property		Fully Cured Resin (Unfilled Casting)*
Barcol Hardness (Model GYZJ 934 -1)		40
Water Absorption 24 h at 23°C	mg	24
Deflection Temperature under Load (1.80 MPa)	°C	69
Elongation at Break at 20°C	%	2.0
Tensile Strength	MPa	65
Tensile Modulus	MPa	3500

*Test methods as in BS 2782 : 1980

Storage

It is recommended that storage temperatures should not exceed 25°C, and that containers should be stored away from direct sunlight and not be opened until they are required for use. The shelf life of the resin under these conditions is 3 months.

Packaging

Crystic 125PA is supplied in 225 kg steel containers. For the purpose of shipping, Crystic 125PA is class 3.0 in the IMCO Code (Page 3153)

Health & Safety

Please see separate Material Safety Data Sheet.

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SCOTT BADER COMPANY LIMITED

Wollaston, Wellingborough, Northamptonshire, NN29 7RL

Telephone: +44 (0) 1933 663100

Facsimile: +44 (0) 1933 666623

www.scottbader.com