

CRYSTIC[®] 329 E PA

Class 2 Fire Retardant Isophthalic Laminating Resin

Introduction

Crystic 329 E PA is a filled, pre-accelerated and thixotropic, fire retardant Isophthalic laminating resin.

Crystic 329 E PA has viscosity similar to a standard Isophthalic laminating resin ensuring good resin impregnation. The resin has an in built blue colour cure indicator and also an accelerator system which gives long working time but rapid cure for improved productivity. This resin has handling characteristics that are suitable for use in tropical climate.

Application

Crystic 329 E PA has been designed for use by spray application, contact moulding and also close mould application such as pultrusion. The resin has wetting and dispersing additives to minimize the settling of fire retardant fillers, however mild settling may be observed on prolong storage and it is recommended to stir the resin before use.

Approvals

Crystic 329 E PA and Crystic Gelcoat 76 PA meets BS 476 part 7, class 2, fire rating.

Features and Benefits

Feature	Benefits
Low viscosity	Rapid impregnation Lower consumption
Low styrene content	Better comfort for the workers Lower smell than standard Isophthalic laminating resin
Very stable	Lower degree of filler sedimentation

Resin/Glass Ratio and use of Additives.

Due to the high specific gravity of Crystic 329 E PA a resin to glass by weight ratio of 2.5 : 1 is recommended. Since certain pigments, fillers or extra styrene may affect the fire retardant properties of Crystic 329 E PA their effect should be evaluated before addition to the formulation.

Post-Curing

Satisfactory laminates for many applications can be made from Crystic 329 E PA by curing at workshop temperature (25°C). For optimum properties, however, laminates should be post cured before being put into service. The laminate should be allowed to cure for 24 hours at 25°C, and then be oven cured for 16 hours at 40°C, or 3 hours at 80°C.

Typical Properties

Test methods as in BS 2782

Property		Liquid Resin
Appearance		Bluish, Thixotropic
Viscosity at 25°C sp 2 at 12 rpm (B/F)	cp	1500 - 2000
Specific Gravity at 25°C		1.3
Volatile content	%	30
Acid value	mg KOH/g	15
Stability at 25°C	months	3
Geltime at 25°C using 2% Catalyst M	minutes	20
Geltime at 25°C using 1% Catalyst M	minutes	50 - 70
Property		Fully cured Resin
Barcol Hardness (Model GYZJ 934-1)		50
Deflection Temperature under load † (1.80 MPa)	°C	85
Tensile Strength	MPa	58
Tensile Modulus	MPa	4900
Elongation at Break	%	1.25

Packaging

Crystic 329 E PA is supplied in 225 kg drums.

Storage

Crystic 329 E PA should be stored under cover in the dark in the original container in which it is supplied. The recommended storage temperature is below 25°C.

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.