

CRYSTIC[®] 349 E PA

Class 0 HET Acid Based Fire Retardant Resin

Introduction

Crystic 349 E PA is a filled, Halogenated (HET based) fire retardant laminating resin.

Crystic 349 E PA has higher viscosity as compared to a standard Isophthalic laminating resin due to the presence of fire retardant fillers. The resin can be used for both hand lay up and spray up application.

This resin has handling characteristics that are suitable for use in tropical climate.

Application

Crystic 349 E PA has been designed for use by spray application and contact moulding. 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 349 E PA along with Crystic Gelcoat 76 PA meets:

- Class A as per ASTM E84
- Class 0 / 1 fire rating as per BS 476, part 6 / 7

Features and Benefits

Feature	Benefits
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 349 E PA a resin to glass by weight ratio of 2.8 : 1 is recommended. Since certain pigments, fillers or extra styrene may affect fire retardant properties of Crystic 349 E PA their effect should be evaluated before addition to the formulation.

Post-Curing

Satisfactory laminates for many applications can be made from CRYSTIC 349 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		Thixotropic
Viscosity at 25°C sp 3 at 12 rpm (B/F)	cp	3000 - 4000
Specific Gravity at 25°C		1.46
Volatile content	%	20
Stability at 25°C	months	3
Geltime at 25°C using 2% Catalyst M	minutes	30
Geltime at 25°C using 1% Catalyst M	minutes	70
Property		Fully Cured Resin
Barcol Hardness (Model GYZJ 934-1)		50
Deflection Temperature under load † (1.80 MPa)	°C	95
Tensile Strength	MPa	45
Tensile Modulus	MPa	6500
Elongation at Break	%	1

Packaging

Crystic 349 E PA is supplied in 225 kg drums.

Storage

Crystic 349 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.