

CRYSTIC[®] 26026

Fire Resistant, Low Smoke Polyester Resin, M2 F2

Introduction

Crystic 26026 is a filled, orthophtalic, non accelerated, low styrene content and thixotropic unsaturated polyester resin. It has to be used when excellent low smoke and fire resistant laminates are required. This resin contains no chlorine and no nitrogene.

Application

Crystic 26026 has been designed to be used by spray application or by contact moulding. Its fire resistance properties enable the product to be used in demanding applications such as building, public transport and railways.

Features and Benefits

Features	Benefits
Low specific gravity	Lighter mouldings Lower consumption Cost savings
Low viscosity	Easy and rapid impregnation Lower consumption.
Low styrene content	Better comfort for the workers Lower smell for the neighbourhood.
Very stable	No filler sedimentation.

Approvals

Fully cured laminates produced with resin Crystic 26026 and gelcoat Crystic 967 FR are classified M2 F2 according to the French Standard with q = 8.6, and F2 with IF = 29.

Resin/Glass Ratio

Due to the high specific gravity of Crystic 26026 a resin to glass by weight ratio of 2.6 : 1 is recommended.

Formulation

Crystic 26026 should be allowed to attain workshop temperature and being a filled resin should be thoroughly stirred before being formulated for use. The following cold curing formulation is recommended:

Crystic 26026	100 parts
Catalyst M	1 to 2 parts
Accelerator E	1 to 4 parts

Catalyst M is a Methyl Ethyl Ketone Peroxide at 50% such as the Butanox M50 from AKZO. Accelerator E is a cobalt octoate at 0.4% active cobalt. Catalyst and accelerator should not be mixed directly together since they can react with explosive violence.

Gel Time

The ambient temperature and the amount, and type, of accelerator control gel time of resin formulations. At 25°C the gel time of Crystic 26026 containing 2% of Catalyst M and 4% of Accelerator E is about 12 minutes.

Parts of Catalyst M for 100 parts Crystic 26026 and 4 parts Accelerator E	2 parts
Geltime at 20°C	15 minutes
Geltime at 25°C	10 minutes

Additives

Since certain pigments, fillers or extra styrene may affect properties of Crystic 26026 their effect should be evaluated before addition to the formulation.

Post Curing

Post curing is recommended in order to develop the heat deflection temperature, dimensional stability and optimum mechanical and fire retardant properties.

Typical Properties

Property		Liquid Resin
Aspect		White
Viscosity (Rhéomat at 37,35 sec-1)	dPas	3 - 4
Specific Gravity		1.37
Acid Value	Mg KOH/g	20 - 27
Volatile Content	%	28 - 32
Stability at 20°C	months	3
Geltime at 25°C using 100 parts of Crystic 26026 and 2 parts Catalyst M and 4 parts Accelerator E	minutes	8 - 12
Property		Fully Cured Resin
Barcol Hardness (Model GYZJ 934-1)		40
Water absorption (24 H at 23°C)	mg	14
Heat Deflection Temperature (1.80 MPa)	°C	80
Specific Gravity		1.4
Tensile Strength	MPa	55
Tensile Modulus	MPa	3600
Elongation at Break	%	1.6

Packaging

Crystic 26026 is supplied in 250 kg drums.

Health and Safety

Please see separate Materials Safety Data Sheet.

Ang_UP_26026

Version 2 : February 2013

All information on this data sheet is based on laboratory testing and is not intended for design purposes. Scott Bader makes no representations or warranties of any kind concerning this data. Due to variance of storage, handling and application of these materials, Scott Bader cannot accept liability for results obtained. The manufacture of materials is the subject of granted patents and patent applications; freedom to operate patented processes is not implied by this publication.

SCOTT BADER COMPANY LIMITED

Wollaston, Wellingborough, Northamptonshire, NN29 7RL

Telephone: +44 (0) 1933 663100

Facsimile: +44 (0) 1933 666623

www.scottbader.com