

CRYSTIC 90-83PA

Introduction

Crystic 90-83PA is a pre-accelerated polyester bonding paste. It is a viscous filled compound designed for non-structural general bonding of GRP mouldings. Crystic 90-83PA has been designed for ease of application. The bond strength of Crystic 90-83PA will decrease at service temperatures greater than 50°C. Structures carrying loads above this temperature should either have additional mechanical fastening, such as bolts or rivets, or be bonded with a more suitable adhesive.

Crystic 90-83PA does not give a good, permanent bond to metal surfaces unless some mechanical interlocking, such as a metal mesh, is used. The bonding pastes can be used on surfaces other than GRP eg, timber, plasterboard, etc. However, it is recommended that trials are carried out to ensure that adequate bond strength is obtained.

FORMULATION

Crystic 90-83PA 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 90-83PA 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 2% into the bonding paste. (Please consult our Technical Service Department if other catalysts are to be used). The catalyst should be thoroughly incorporated into the material with a low shear mechanical stirrer where possible.

Pot Life*

Temperature	Minutes
20°C	40
25°C	30

* Will vary depending on thickness and temperature

The bonding paste, moulding and workshop should all be at, or above 15°C before curing is carried out.

APPLICATION

The surfaces to be bonded should be clean, dry and free from any contamination. It may be necessary to roughen the surfaces to be bonded in order to obtain the bond strength required. Each surface should be coated with the catalysed bonding paste and held together until the paste has hardened.

COVERAGE

As a rough guide, 4kg of bonding paste will cover one square metre to a depth of approximately 3mm.

ADDITIVES

Crystic 90-83PA is supplied ready to use. The addition of pigments or other materials can adversely affect the degree of cure and bond strength obtained.

POST CURING

Satisfactory bonds for most applications can be obtained by curing Crystic 90-83PA at workshop temperature (20°C).

TYPICAL PROPERTIES

The following tables give typical properties of Crystic 90-83PA when tested in accordance with the appropriate BS or BS EN ISO test methods.

Appearance		Bluish paste
Viscosity @ 25°C		Non-sag
Stability in the dark @ 20°C	months	3
Geltime @ 25°C *	minutes	30

*2% Catalyst M (or Butanox M50)

Hardness (Shore D)		80
Tensile Strength	MPa	18
Tensile Modulus	MPa	1500
Elongation at Break	%	4
Single Lap Shear Strength	MPa	9.8

* Curing Schedule - 24 hrs at 20°C, 16 hrs at 40°C

Storage

Crystic 90-83PA 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 90-83PA is supplied in 25kg and 200kg containers.

Health & Safety

Please see separate Material Safety Data Sheets.

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