CRYSTIC BP 90-82PA

Bonding Paste

Introduction
Crystic BP 90-82PA is pre-accelerated polyester bonding paste. It is a viscous, white and filled compound containing a flexible additive, specifically designed for the assembly and bonding of GRP mouldings. Such applications include panels, inserts, internal frames, ribs, composite constructions and car body components. The use of these bonding pastes gives high shear-strength structures.

The bond strength of Crystic BP 90-82PA will decrease at service temperatures greater than 60ºC. 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 BP 90-82PA 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 e.g. timber, plasterboard, etc. However, it is recommended that trials are carried out to ensure that an adequate bond strength is obtained.

Formulation
Crystic BP 90-82PA should be allowed to attain workshop temperature (18ºC - 20ºC) before use. Crystic BP 90-82PA 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 1 to 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.

Features and Benefits

Highly thixotropic	No drainage on vertical surface
Colour change system	For thorough catalyst mixing
Flexible additive	Better impact resistance

Pot Life

Catalyst Level (MEKP at 50%)	Pot Life in Minutes at 25°C
1%	28
2%	12

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 abrade 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 BP 90-82PA is supplied ready to use. The addition of pigments or other materials can adversely affect the degree of cure and bond strength obtained.

Typical Properties
The following table gives typical properties of Crystic BP 90-82PA when tested in accordance with appropriate BS or BS EN ISO test methods.

Property	**Unit**	**Liquid Bonding Paste**
Appearance		Bluish Paste
Viscosity at 25°C		Highly Thixotropic
Stability in The Dark at 20°C	Months	3
Geltime at 25°C Using 1% Catalyst M (or Butanox M50)	Minutes	28
Property		**Fully Cured (Unfilled Casting)**
Appearance		White
Elongation at Break	%	2.8
Single Lap Shear Strength	MPa	11.2

Post Curing
Satisfactory bonds for most applications can be obtained by curing Crystic BP 90-82PA at workshop temperature (20°C).

Storage
Crystic BP 90-82PA should be stored in the dark in suitable, closed containers. It is recommended that the storage temperature should be less than 20ºC where practical, but should not exceed 30ºC. 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 BP 90-82PA is supplied in 25Kg and 225Kg containers.

Health and Safety
Please see separate Material Safety Data Sheets.

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