

CRYSTIC[®] SCOTTBOND 117PA

Versatile GRP Adhesive Bonding Paste

Introduction

Crystic ScottBond 117PA is a gap filling adhesive paste based on a high quality orthophthalic polyester resin. It is pre-accelerated to give a convenient working time. Crystic ScottBond 117PA has been shown to bond to most materials commonly used in the GRP industry. However, Scott Bader recommends that any potential application be tested prior to use, especially with metals whose coefficient of linear expansion may be very different to GRP laminates. Please contact your Scott Bader Representative for further information. For applications where the GRP is likely to undergo severe flexing during its life, a flexible structural adhesive such as Crystic ScottBond 104PA or Crestomer 1152PA should be used.

It is also available as Crystic ScottBond 117PA White.

Features and Benefits

Crystic ScottBond 117PA exhibits excellent adhesion to GRP laminates. The bond is usually stronger than that between the resin and glass fibre in the laminate, resulting in interlaminar failure as opposed to adhesive or cohesive failure.

Formulation

Crystic ScottBond 117PA should be allowed to attain workshop temperature before use: 18°C to 25°C.

Crystic ScottBond 117PA is formulated for room temperature curing. It requires only the addition of the correct amount of Norox[®] KP9 to start the curing reaction. The recommended formulation is given in Table 1 below:

Table 1

Component	Parts by weight
Crystic ScottBond 117PA	100
Norox KP9	1.0-3.0

The catalyst must be mixed thoroughly into the paste shortly before use, using a palette knife or similar implement. The paste must be allowed to attain workshop temperature (15-30°C) before being formulated for use.

The temperature and the amount of Norox KP9 control the gel time of the paste formulation and can be approximately determined from Table 2.

N.B. Peroxide catalysts are highly reactive and may decompose with explosive violence, or cause fires, if they come into contact with flammable materials, metals or accelerators. For this reason they must never be stored in metal containers or be mixed directly with accelerators.

Table 2

Geltimes at 25°C using 100 g Crystic ScottBond 117PA:

Norox KP9 addition	Geltime at 25°C in minutes
1.0%	16
1.5%	12
2.0%	9
2.5%	8
3.0%	7

Curing should not be carried out at ambient temperatures below 15°C. Scott Bader (Pty) Ltd. will not be liable for problems caused by use at lower temperatures than recommended.

Surface Preparation

As with all adhesives, maximum performance is only achieved with adequate surface preparation. When bonding the back surface of (polyester) GRP, a simple solvent wipe with acetone is satisfactory pre-treatment to clean and degrease the surface. However, for gelcoated GRP surfaces and for other substrates, degreasing using acetone or similar, followed by abrasion and a final de-grease is recommended.

Typical Properties

Table 3 gives the typical properties of uncured Crystic ScottBond 117PA:

Table 3

Property	Units	Nominal value
Viscosity at 25°C:		Thixotropic paste
Relative Density 25°C	g/cm ³	1.508
Colour	visual	Pink
Stability in the dark at 25°C	months	3
Geltime at 25°C using 1% Norox KP9	minutes	16

Storage

Crystic ScottBond 117PA 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 drums be kept in a horizontal position to avoid the possible ingress of water. Wherever possible, containers should be stored under cover.

Packaging

Crystic ScottBond 117PA is supplied in 25kg and 225kg steel containers.

Health and Safety

Please see the applicable Material Safety Data Sheets, depending on the curing system used.

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Before you use this information, kindly verify that this data sheet is the latest version.

All information is given in good faith but without warranty. We cannot accept responsibility or liability for any damage, loss or patent infringement resulting from the use of this information.

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