

# CRYSTIC GELCOAT 92PA

## Water and Chemical Resistant Spray Iso - NPG Gelcoat

### Introduction

Crystic Gelcoat 92PA is a pre-accelerated Iso - NPG spray gelcoat. It is available in a wide range of colours and the information contained in this technical data sheet also applies to pigmented versions.

### Applications

Crystic Gelcoat 92PA is recommended for use in sanitary ware and for chemical process plant fabrications.

### Features and Benefits

Crystic Gelcoat 92PA has excellent resistance to hot and cold water. It also has good resistance to a wide variety of chemicals including acid and alkaline solutions.

### Formulation

Crystic Gelcoat 92PA 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. The recommended catalyst is Butanox M50 (or other equivalent catalyst), which should be added at 2% into the gelcoat. For low-taint applications, the catalyst should be Catalyst O (or Curox M100) also added at 2%. (Please consult our Technical Service Department if other catalysts are to be used).

### Pot Life

Temperature	Pot Life in Minutes Using 2% Butanox M50 (or other equivalent catalyst)
15°C	9
20°C	7
25°C	6

The gelcoat, mould and workshop should be at, or above, 15°C before curing is carried out.

### Spray Application

#### Do

- Gently stir the gelcoat before use by hand or low shear mixer.
- Ensure the gelcoat has attained workshop temperature of 18°C-20°C before use. Temperatures below 18°C will require higher pressure to achieve an acceptable spray pattern and this will encourage porosity.
- Spray at the minimum practical pressure whilst maintaining an acceptable spray pattern and full fan width.
- Apply a mist coat and then build up thickness in long, even passes of 0.125mm (0.005 inch) until the recommended wet film thickness of 0.5-0.625mm (0.020-0.025 inch) is reached. This will minimise porosity and colour defects.

#### Don't

- Stir the gelcoat with high shear mixers as this will temporarily break down the thixotropy leading to drainage.
- Exceed a wet film thickness of 0.625mm (0.025 inch) as thick films encourage air retention.
- Apply excessive thickness in corner areas as this can cause pre-release.

## Additives

Crystic Gelcoat 92PA is supplied in a restricted range of colours. This eliminates the potential for mixing errors with small quantities of pigment paste. The addition of fillers or pigments can adversely affect the weather, water and chemical resistance of the cured gelcoat.

## Recommended Testing

It is recommended that customers test all pigmented gelcoats before use under their own conditions of application to ensure the required surface finish is achieved.

## Typical Properties

The following tables give typical properties of Crystic Gelcoat 92PA when tested in accordance with SB, BS EN or BS EN ISO test methods.

Property		Liquid Gelcoat
Appearance		Hazy Pink
Viscosity @ 25°C		Thixotropic
Specific Gravity @ 25°C		1.1
Volatile content	%	46
Stability @ 20°C	months	3
Gel time @ 25°C using 2% Butanox M50 (or other equivalent catalyst)	minutes	6

Property		Fully cured* Gelcoat (unfilled casting)
Barcol Hardness (Model GYZJ 934-1)		47
Water Absorption 24 hrs @ 23°C	mg	16.4
Deflection Temperature under load† (1.80 MPa)	°C	94
Elongation at Break	%	1.6
Tensile Strength	MPa	54.5
Tensile Modulus	MPa	3745

\* Curing Schedule - 24 hrs @ 20°C, 3 hrs @ 80°C

† Curing Schedule - 24 hrs @ 20°C, 5 hrs @ 80°C, 3 hrs @ 120°C

## Post-Curing

Satisfactory laminates for many applications can be made with Crystic Gelcoat 92PA by curing at workshop temperature (20°C). However, for optimum properties, laminates must be post-cured before being put into service. The moulding should be allowed to cure for 24 hours at 20°C, and then be oven-cured for 3 hours at 80°C. For low-taint applications the moulding should be allowed to cure for 24 hours at 20°C, and then be oven-cured for 3 hours at 85°C. This should be followed by wet-steam cleaning for 1 hour, or by filling with water at 80°C for 2 hours. The water should contain a perfume-free detergent and several batches of clean water should be used for rinsing.

## Storage

Crystic Gelcoat 92PA should be stored in its original container and out of direct sunlight. 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.

## Packaging

Crystic Gelcoat 92PA is supplied in 25kg and 225kg containers.

## Health and Safety

Please see separate Material Safety Data Sheet.