

Crystic® Gelcoat GT-900

Isophthalic Gelcoat for Spray Application



Introduction

Crystic® Gelcoat GT-900 is a high performance, isophthalic gelcoat. It is filled, pre-accelerated and formulated for spray application. The information contained in this technical datasheet applies to all colours.

Applications

Crystic® Gelcoat GT-900 is recommended for use in all markets including marine, land transport and building applications. It is also suitable for general moulding requirements.

Features and Benefits

Crystic® Gelcoat GT-900 has been developed to ensure excellent intrinsic water and weathering resistance. The viscosity profile ensures even coverage with minimal drainage and low film porosity.

GelTint offers the latest in pigment and gelcoat technology producing a high quality product for ease of use, finish and longevity. There is a vast range of colours available. Custom colour matching is also available if required once you contact a Scott Bader representative.

The biggest benefit of GelTint is the speed of service. We have a lead time of 5 working days with a priority service of 48 hours from when the order is placed.

Spray Application

Do

- Ensure the gelcoat has attained workshop temperature of 18°C - 25°C before use (temperatures below 18°C will require higher pressure to achieve an acceptable spray pattern and this will encourage porosity).
- Add 2% Butanox M50 or equivalent catalyst.
- Gently stir the gelcoat before use by hand or low shear stirrer.
- 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 - 0.6mm (0.020 - 0.025 inch or 500-600g/m²) is reached. This will minimise porosity and colour defects.
- Apply the first layer of laminate within 24 hours of the gelcoat.
- Ensure that all equipment is thoroughly cleaned after use.

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 0.6mm (0.025 inch) as thick films encourage air retention.
- Apply excessive thickness in corner areas as this can cause pre-release.
- Apply backing laminate before the gelcoat has cured to a 'tack-free' surface.
- Catalyse more gelcoat than can be applied before it starts to gel.

Additives

Crystic® Gelcoat GT-900 should only be used with specified GelTint pigments.

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 – Uncured

Property	Unit	Liquid Gelcoat
Appearance	-	Coloured
Viscosity at 25°C	-	Thixotropic
Specific Gravity at 25°C	-	1.2
Volatile Content	%	35
Stability at 20°C	Months	3
Geltime at (25°C, 2% Butanox M50)	Minutes	7

Typical Properties - Cured

Property	Unit	Fully Cured Gelcoat (Unfilled Casting)
Barcol Hardness (Model GYZJ 934-1)	-	42
Water Absorption 24 hrs at 23°C	mg	18
Heat Deflection Temperature [†] (1.8MPa)	°C	75
Elongation at Break*	%	3.0
Tensile Strength*	MPa	75
Tensile Modulus*	MPa	3600

* Curing Schedule - 24hrs at 20°C, 3hrs at 80°C.

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

Post-Curing

Satisfactory laminates for many applications can be made with Crystic[®] Gelcoat GT-900 by curing at workshop temperature (18 - 25°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 workshop temperature, and then oven-cured for 3 hours at 80°C.

Storage and Shelf Life

Crystic[®] Gelcoat GT-900 should be stored in its original container and out of direct sunlight. These must be kept closed and airtight. It is recommended that the storage temperature should be between 10°C - 20°C where practical, and should not exceed 30°C. Ideally, containers should be opened only immediately prior to use. Material should be used within 3 months of receipt.

Packaging

Crystic[®] Gelcoat GT-900 is supplied in 20kg containers.

Health and Safety

Read and understand separate Material Safety Data Sheet before using this product. Unsaturated polyester products release heat when they cure in bulk.

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