

Technical Data Sheet

GELCOAT EP 402 GREEN

*Two Part Green Epoxy Gelcoat System
88 Shore D Hardness*

GELCOAT EP 402 Green is a two component, mineral filled, brushable, room temperature curing surface coat. GELCOAT EP 402 Green is designed for use in patterns, models, gauges, negatives and electro forming tools.

Special Features

- Excellent solvent resistance
- Excellent finish when polished with fine grade sand paper
- Easy to apply

Mix Ratio

EP 402 Green : H402
By Weight 100 : 10

Product Data

| Property | Units | EP 402 Green | H402 | Mix |
|---------------------------|-------------------|-------------------------|------------------|--------------------------|
| Material | - | Epoxy resin | Formulated amine | Epoxy |
| Appearance | - | Green thixotropic paste | Amber liquid | Green thixotropic liquid |
| Viscosity (25°C) | mPa.s | Thixotropic paste | 70 – 110 | Thixotropic liquid |
| Density (25°C) | g/cm ³ | 1.60 – 1.70 | 0.96 – 1.01 | 1.50 – 1.60 |
| Pot Life (200g, 25°C) | Minutes | - | - | 35 – 55 |
| Demould Time (200g, 25°C) | Hours | - | - | 12 – 16 |

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Cured Properties

| Properties | Standard | Units | Result (Full Cure) |
|-----------------------------------|---------------|---------|--------------------|
| Hardness | BS EN ISO 868 | Shore D | 86 – 90 |
| Tensile Strength | BS EN ISO 527 | MPa | 14.0 – 17.0 |
| Elongation at Break | BS EN ISO 527 | % | 1.0 – 2.0 |
| Flexural Strength | BS EN ISO 178 | MPa | 43.0 – 49.0 |
| Flexural Modulus | BS EN ISO 178 | MPa | 5000 – 5600 |
| Heat Distortion Temperature (HDT) | TMA | °C | 50 – 60 |

Method of Use

Mould Preparation

Mould surfaces should be treated with ALCHEMIX R7 or suitable release agent. Porous materials should be well sealed.

Mixing and Application

GELCOAT EP 402 Green should be mixed with HARDENER H402 according to the indicated mixing ratio. Both components should be thoroughly mixed, care should be taken to avoid air entrapment and make certain that material at bottom and sides of container is thoroughly stirred into centre. The mixed material should be evenly applied to the mould by brush, in 0.5mm thick layers. A minimum of two layers should be applied, with a combined thickness of less than 2.5mm. To ensure that each coat adheres, wait until the first coat has gelled to a tack free state before applying successive coats. The gelcoat is tack free if when a finger is lightly drawn across the surface no material sticks to it, but if firmly pressed, a mark will remain on the surface. The tack free stage is critical in the gelcoating process and will vary between different gelcoats. If the tack free stage is missed then it is likely that de-lamination between the gelcoat layers or the gelcoat and backing resin may result.

Laminating

For general use, ALCHEMIX EP 502 or ALCHEMIX EP 5752 epoxy laminating systems are recommended for use with GELCOAT EP 402. Full technical data is available for these products.

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Storage

GELCOAT EP 402 Green and HARDENER H402 should be stored in original, unopened containers between 15 and 25°C. KEEP THE PACKING TIGHTLY SEALED WHEN NOT IN USE.

If stored under the above conditions, GELCOAT EP 402 Green / H402 will have a shelf life of 12 months, from the date of production.

Packaging

GELCOAT EP 402 Green is supplied in 1kg and 5kg containers.
HARDENER H402 is supplied in 100g and 500g containers.

(Please contact Alchemie Ltd for bulk supply)

Further Information

This data is not to be used for specifications. Values listed are for typical properties and should not be considered minimum or maximum.

Our technical advice, whether verbal, or in writing is given in good faith, but without warranty – this also applies where proprietary rights of third parties are involved. It does not release you from the obligation to test the products supplied by us as to their suitability for the intended process and use.

Before using any of our products, users should familiarise themselves with the relevant Technical and MSDS provided by Alchemie Ltd.

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Alchemie Limited

Alchemie Ltd develop, formulate and distribute Epoxy Resins, Polyurethane Resins, Silicones, Model Boards and Sheet Wax for use in the following applications:

- Electrical encapsulation
- Rapid Prototyping
- Prototypes
- Casting
- Gel Coating
- Laminating
- Model Making
- Master Models
- Flexible and rigid mould making

We offer fast service, technical support, development expertise, innovative products, diverse knowledge and experience.

We are a well-established company, with a high level of investment and experience. We implement BS EN ISO 9001.

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