

300-Line High Performance Tooling Gelcoats

Technical Data

PRODUCT VARIANTS

3005003 SPECIAL RED TOOLING GELCOAT
3000001 SPECIAL BLACK TOOLING GELCOAT

300-line High Performance Tooling Gelcoats have been and can be made available in a range of colours. Certain colours may not be available due to the performance limitations of the particular pigments.

PRODUCT DESCRIPTION

300- line High Performance Tooling Gelcoats are designed for use in the manufacture of fibreglass moulds as used in the composites industry.

They are based on a resin with a high H.D.T. and excellent resistance to solvent liquid and fumes. Their rheological characteristics ensure excellent spraying, levelling and sag resistance with minimum porosity.

300- line High Performance Tooling Gelcoats are suitable for use in large or small moulds, where high performance characteristics are desired. The working life of such moulds will depend on the care taken in their construction and handling during manufacture, but the expected life should be a hundred cycles. More can be expected with careful use.

PRODUCT ADVANTAGES

- High gloss on demoulding from the plug
- Based on a resin with excellent solvent resistance
- Very good spraying characteristics
- Good impact properties
- Very good water resistance
- Good polishing properties.

TYPICAL PROPERTIES

These values are listed as a reference guide only and are not intended for use as specifications.

Test	Result	Test Method
Viscosity (Brookfield RVT, Spindle 4), 5 rpm, cps	10 000 – 14 000	TM18
Thixotropic Index	4.4 to 5.2	TM18
Gel Time @ 25°C, 1% MEKP, mins	14 – 19	TM19
Density @ 25°C, kg/l	1.19 – 1.21	TM40

The gel time of the sprayed film on the mould will be about twice that of the 100 gm. mass above.

CURE INFORMATION

Catalyst Addition:

300-line High Performance Tooling Gelcoats are formulated for spray application as received and are designed to be cured by the addition of 1.5 – 2.5% MEKP. Contact Technical Service for information on recommended catalyst grades. Do not catalyse at levels below 1% or above 3% as this may result in curing problems or other physical defects.

300-line High Performance Tooling Gelcoats have a medium gel time and cure rate for maximum flexibility, air release and adhesion of the tie layer. Consult the Customer Service department if other variations are desired.

Gelcoat Thickness:

Correct gelcoat thickness is important to obtain satisfactory cure. Recommended thickness is as follows:

Wet:	0.6mm – 0.75mm	600 – 750 microns	(24 – 30 thou)
Dry:	0.5mm – 0.6mm	500 – 600 microns	(20 – 24 thou)

Normally applied in 3 to 5 passes to a minimum thickness 0.4 – 0.5 mm. (400 – 500 microns or 15 – 20 thou). Extra layers may be added to build the gelcoat thickness (or add a different colour layer to show wear in use) up to 0.8 – 0.9 mm. (30 – 36 thou).

A thickness below 0.3 mm. may lead to tripping after the next layer is added, due to poor cure.

Temperature:

Do not apply at temperatures less than 15°C or more than 35°C. The plug or pattern temperature must also be above the lower temperature limit.

Humidity:

Do not apply at relative humidity exceeding 80%. High humidity levels can retard the cure and have other undesirable effects. Air lines should be drained regularly, and just before application.

STORAGE AND SHELF LIFE

Uncatalysed gelcoats have a shelf life of 4 months from date of manufacture, when stored in original sealed containers in a cool, dry area away from sunlight and other sources of heat. Storage temperatures above 25°C can reduce the shelf life. Note that the material should be agitated before use.

HEALTH AND SAFETY

Before handling, refer to the Material Safety Data Sheet for health and safety information.