



Crestamould[®] T29 Sprayable

Polyester-based sprayable and machinable tooling compound

Product Overview

Crestamould[®] T29 Sprayable is a modified polyester compound designed for the milling of large plugs or production moulds with CNC multiple axis machines. This material combines unique qualities and can be sprayed with few passes up to a thickness of approx. 1-3mm (0.04 - 0.12”).

Crestamould[®] T29 Sprayable provides a homogenous substrate that prevents print from the underlying structure.

Features and Benefits

- Fast application, build-up with few passes
- Tough and resilient
- Maintains dimensional tolerance over time
- Low shrinkage, low exotherm
- Easy to cut and machine with carbide tools
- Machines with chips - low dust generation
- Low tool wear
- Remarkable profile of finished parts
- No settling in the equipment
- Easy to repair - bonds to itself
- Compatible with polyester sanding primers
- Constant hardness over time, after 24 hours, or after 6 months

General Properties

Colour	Light blue to light beige when cured
Density	0.78 - 0.83 g/cc; 6.5 - 6.9 lbs gallon
Viscosity, RV1 PP35Ti @ 6.0 25°C	3000 - 7000 mPas
Viscosity, RV1 PP35Ti @ 0.6 25°C	15,000 - 45,000 mPas
Gel time @ 25°C - 100g @ 2% M50	20 - 30 minutes
Peak Exotherm 100g Mass	< 150°C

Mechanical Properties

Hardness after 24 hours	70 Shore D
Tg	90°C

Application

When applying Crestamould® T29 Sprayable the first layer is critical. The first layer needs to be applied with a thickness between a minimum of 1.5mm (1/16") and a maximum of 3mm (1/8"). The first layer should be uniformly applied and allowed to gel, exotherm and cool down. Duration approx. 1 - 1.5 hours. Once this first coat cools to room temperature, subsequent coats of up to 3mm (1/8") can be applied, waiting for a relative cool-down between the passes to approx. 43-49°C (110-120°F). This is repeated until the total desired thickness is achieved. The secondary bonding window is such that no sanding is required between coats if the job is stopped. The coverage is 1 litre/1mm/m² (0.6 gallons per inch per ft²). Tool marks are removed with 80-120 grit sandpaper. The surface needs no further preparation prior to sanding and primer application.

Equipment

Crestamould® T29 Sprayable can be dispensed through a suitable internal mix catalyst pumping/ spraying system, such as a gelcoat dispensing machine, or for more industrial applications a ram-type dispensing machine can be used.

The recommended tip size for spraying is 0.53mm using a 521 tip, pressurised between 55-70 psi via a pumped unit or 70 psi for air assisted spraying.

Machining

Use carbide tools. End-mill tools are used for the majority of the work, ball-end tools for finishing. Adjust speeds to avoid overheating or overloading and material pull out. Do not leave the CNC unattended. Brush or blow off material as it accumulates on flat surfaces. If possible, blow air at tool-tip. A shop temperature of 24°C (75°F) and above will improve machining and reduce tool wear. Colder temperature will make the Crestamould® T29 Sprayable harder. Remove shavings daily from part and do not leave machine unattended when in use.

Additional Information

Shelf life

If stored correctly, Crestamould® T29 Sprayable has a shelf life of 9 months.

Storage

The product should be kept in securely enclosed containers. Storage should be in a dry place and out of direct sunlight. The temperature should be between 18-25°C (65-77°F). Allow material to reach shop temperature before using. Keep containers closed to eliminate styrene evaporation and to avoid change in properties.



Making a *positive* difference

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Scott Bader UK
Wollaston
Wellingborough
Northants
NN29 7RL
UK

Tel: +44 (0)1933 663100

email: enquiries@scottbader.com

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