CRESTAMOULD®
Matched Tooling Systems

# Crestamould® RTR 4010PA

## Rapid tooling resin

### Product Overview

Crestamould® RTR 4010PA is a new, improved rapid tooling resin which incorporates better handling properties, lower viscosity, improved shrinkage control and is catalysed with standard MEKP catalyst. Crestamould® RTR 4010PA is a thixotropic, filled, low profile resin for hand-lay mould making applications available in white or natural colour.

Crestamould® RTR 4010PA helps to achieve faster mould making and eliminates surface distortion, forming part of Scott Bader's new mould making system, which also comprises of Crestamould® GC15PA

### Applications

Crestamould® RTR 4010PA is designed for hand-lay applications and must be allowed to attain a minimum workshop temperature of 18°C before use (20°C - 24°C is recommended). It should be mixed thoroughly prior to use and requires only the addition of MEKP catalyst to start the curing reaction. The recommended catalyst is Catalyst M (or Butanox® M50), which should be added at 1% into the resin and thoroughly dispersed. The recommended resin-to-glass ratio for chopped strand mat glass reinforcement is at least 3-to-1 by weight.

Although Crestamould® RTR 4010PA is designed for hand lay application, it can also be spray applied. Please contact the Scott Bader Technical Service department if further information is needed.

The design, complexity and size of the mould will determine optimum reinforcement levels and thickness. At least 3 layers of 450gsm chopped strand glass mat, or equivalent, is required and should be applied in a single operation consolidating between layers, to achieve sufficient cure and low shrink performance. The material will undergo a colour change becoming whiter as the curing reaction takes place.

## Typical Properties

The following tables give typical properties of Crestamould® RTR 4010PA:

| Properties | Unit | Liquid resin |
|---|---|---|
| Colour | | Cream/ Opaque or Light Brown |
| Viscosity at 25°C (ICI Cone and Plate) | Poise | 4.5 - 5.5 |
| Specific Gravity at 25°C | | 1.35 |
| Volatile Content | % | 25 - 30% |
| Geltime at 25°C with 1% Catalyst M** | Minutes | 25 - 34 |
| Stability (at less than 20°C in original container) | Months | 5 |

| Mechanical Properties | Unit | Laminate Properties | Test Method |
|---|---|---|---|
| Tensile strength* | MPa | 114 | ISO-75 |
| Tensile Modulus* | MPa | 8075 | ISO 527-4 |
| Elongation at Break* | % | 2 | ISO 527-4 |
| HDT of Compounded Product*** | °C | 63 | ISO-75 |
| HDT of Base Resin**** | °C | 99 | ISO-75 |

* Glass content 28%, laminate made with 3 layers of 450gsm CSM; 16hrs at 40°C post cure.
** Catalyst Butanox M50 can be used.
*** Property of the filled cast resin; 16hrs at 40°C post cure.
**** When cured with 16hrs @ 40°C plus 8 hrs 80°C.

## Additional Information

### Post curing

Satisfactory laminates for many applications can be made from Crestamould® RTR 4010PA by curing at workshop temperature (20°C) for. However, for optimum properties and long term performance, moulds made with Crestamould® RTR 4010PA should be post cured for at least 7 days before being put into service. The laminate should be allowed to cure for 24 hours at 20°C and then oven cured for 16 hours at 40°C.

### Additives

Crestamould® RTR 4010PA is supplied ready to use and already has pigment added. No further pigments or other materials should be added as this could adversely affect the degree of cure and mechanical properties of the cured resin.

### Storage

Crestamould® RTR 4010PA should be stored between 5°C - 25°C in the original, unopened container in a dry, well ventilated place. Protect from freezing and direct sunlight. Avoid contact with oxidising agents. If stored outside of the recommended storage conditions shelf life will be significantly reduced.

### Packaging

Crestamould® RTR 4010PA is supplied in 25kg and 225kg containers.

### Health and safety

See separate Material Safety Data Sheet.

SCOTT BADER

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