



# Tooling Application Guide



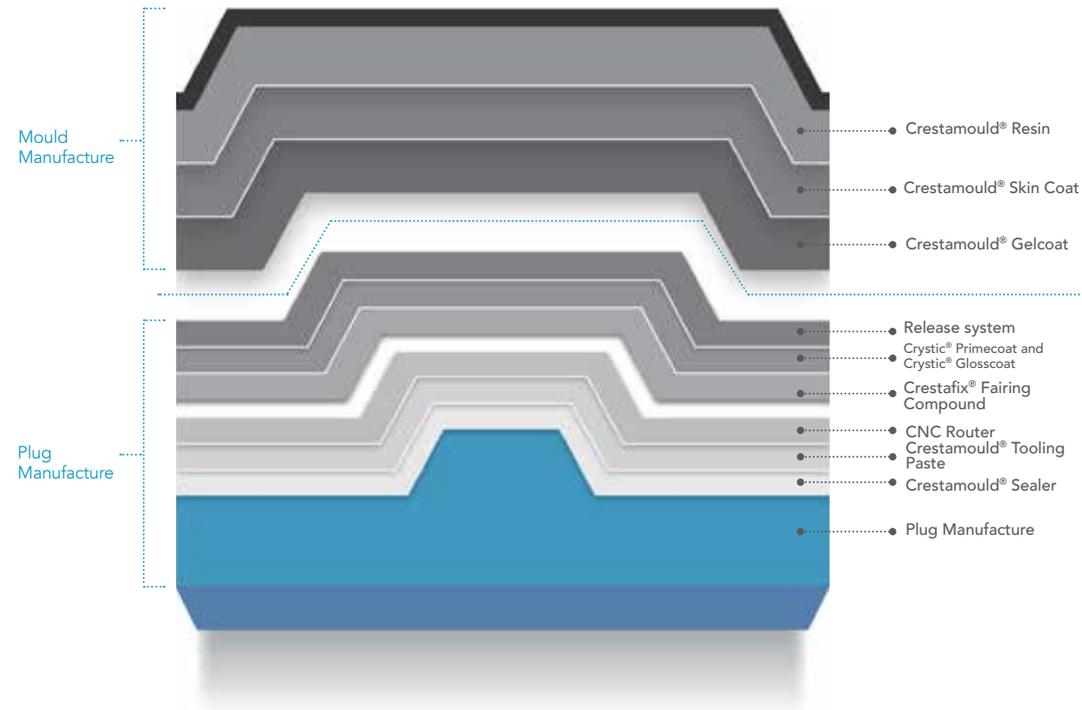
# Products Featured in this Guide

## For Crestamould Plug Making Systems:

- **Crestamould primecoat** - High build polyester coating material for rapid surfacing of patterns
- **Crestamould Glosscoat** – Polyester coating material that can be polished to high gloss
- **Crestafix F26R** – Low density polyester fairing compound
- **Crestamould T29** – High build tooling compound for CNC processing
- **Crestamould B21 sealer** – Laminating resin for sealing of polystyrene substrates

## For Crestamould Essentials System:

- **Crestamould Essentials 11PA** – Iso-NPG gelcoat with high heat resistance and hardness
- **Crestamould Essentials 4005PA** – Low cost, low shrinkage tooling resin
- **Crestamould Essentials 474PA** – Orthophthalic polyester resin for high temperature resistant tooling



Please read the Technical Data Sheets before using each product.

# Preparing the plug

The key to achieving the best quality mould surface, other than using a premium tooling system such as Scott Bader's Crestamould system, is to begin with a top-quality plug. Extra time spent improving the surface finish of the plug will greatly reduce the amount of finishing work needed to the surface of the mould.

Here are some steps outlining plug manufacture from start to finish:

## Step 1: Create the base pattern

- a. Using a suitable substrate (i.e. PU or EPS blocks), CNC or hand-shape to desired pattern

## Step 2: Seal pattern with Crestamould B21 Sealer

- a. Catalyst: 2% medium reactivity MEKP
- b. Laminate onto the surface of the pattern in combination with 1-2 layers of 450g CSM
- c. Allow the laminate to cure and knock off any raised areas with coarse sandpaper and clean surface

## Step 3: Spray or extrude Crestamould T29

- a. Catalyst: 2% medium reactivity MEKP
- b. The material can be applied up to around 15mm thickness
- c. Allow the material to fully cure before machining with carbide tools
- d. Finish the surface with coarse sandpaper to remove tool marks

## Step 4: Use Crestafix F26R to fair the surface and remove defects

- a. Catalyse with 1% MEKP
- b. Use sparingly where needed
- c. Sand to a smooth surface

## Step 5: Use Crestamould Primecoat for a uniform, sandable finish

- a. Follow instructions on TDS for application

## Step 6: Use Crestamould Glosscoat for a hard, high gloss surface

- a. Follow TDS instructions

## Step 7: Don't forget release agent! See steps 1-4 of mould release guidelines

*Crystic Primecoat and Crystic Glosscoat are ideal products to coat a plug, leaving a very glossy and durable finish.*



# Crestamould Essentials Tooling System

- **Crestamould Essentials 11PA** – As per 15PA instructions
- **Crestamould Essentials 4005PA** – As RTR4010PA instructions
- **Crestamould Essentials 474PA**
  - Catalyst: 1.5-2% Medium reactivity MEKP
  - 2:1 resin:glass ratio
  - One layer of glass CSM should be applied at a time and allowed to fully cure before applying the next layer to avoid heat buildup and excessive shrinkage
  - Postcuring recommendations as for 4005/4010PA

## Mould Release System

- Step 1:** Clean the mould thoroughly with a suitable mould cleaner
- Step 2:** Apply a suitable mould sealer according to manufacturer's instructions
- Step 3:** Apply a suitable semi-permanent release agent according to manufacturer's instructions
- Step 4:** Optional – apply one coat of a hard wax such as Mirrorglaze. This will reduce any tendency to de-wet or pre-release when the mould is used
- Step 5:** After the first release, use a masking tape test to check that the release agent remains on the mould surface



**Step 6:** If the masking tape sticks to the mould surface a layer of semi permanent release or hard wax should be applied according to manufacturers recommendations. The masking tape test should be repeated after application of the release agent to check that sufficient release agent has been applied to ensure part release and no damage to the mould.

**Step 7:** Continue as step 5 and 6 until the release performance becomes predictable and easy, then re-apply one coat of release agent as and when required



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