



Technical Data Sheet
Art. No. (6541290617)

Polycraft SlowSet 15

Slow Setting Polyurethane Casting Resin System

A : B 50 : 50 (By weight)	14-18 Minutes (At 20°C)	3-5 Hours (At 20°C)	Off White (Colours may vary Slightly per batch)	Shore D70	 (20°C)	1.1kg by weight equals approx. 1 Litre in Volume
Mix Ratio	Pot Life	Demould Time	Cured Colour	Hardness	Working Temperature	Approximate Density

Key Features

- **Low Viscosity**
- **Easy Mixing**
- **Highly Fillable**
- **Long Potlife**
- **High Strength**
- **Easily Pigmented**
- **Low odour**
- **Reproduces Fine Detail**

Technical Overview

Properties	Component	Value
Material	A	Polyol
	B	Isocyanate
	A+B Mix	Polyurethane
Colour	A	Off White
	B	Light Yellow
Viscosity (mPas) @25°C	A	120 ± 20
	B	25 ± 5
	A+B Mix	60 ± 10
Density 20°C g/cm ³	A	1.00 ± 0.02
	B	1.14 ± 0.02
	A+B Mix	1.10 ± 0.02
Pot Life (Min.) 200g Mix	A+B Mix	14 - 18
Curing Time (Hrs.)	A+B Mix	3 - 5

Properties	Unit	Value
Flexural Strength	Mpa	50 ± 5
Flexural Modulus	MPa	1200 ± 200
Flexural Strength @ Break	MPa	7.3 ± 0.5
Compressive Strength	MPa	36 ± 5
Impact Resistance	kJ/m ²	30 ± 5
Heat Resistance (HDT)	°C	72 ± 2
Shore Hardness	Shore D	70 ± 3

Measure / Mix

Before use, ensure that parts A & B are at room temperature (20°C). Surface and air temperatures should be above 15°C during application and for the entire curing period. At higher or lower temperatures pot-life and cure time can be significantly affected.

Stir or shake both Part A & Part B thoroughly before dispensing into your mixing vessel. Part A & Part B are mixed by hand using a ratio of 1A:1B by weight. (Example 100g A : 100g B)
Mixing accuracy is important as imprecise ratios will affect the cure.

Scrape the sides and bottom of the mixing vessel multiple times to ensure adequate mixing taking care not to splash or spill.

Plastic mixing vessels / mixing utensils are recommended as wood or paper equipment can introduce moisture into the resin system.

Key Information

Casting Thickness

Large castings over 50mm will generate considerable heat, Alternative fillers such as the Aluminium Hydroxide should be used to help reduce the exothermic heat generation which can cause excessive shrinkage and possible fracturing of the casting.

Moisture

These materials are moisture sensitive and will absorb atmospheric moisture which can cause a variety of curing issues. Ensure containers are sealed immediately after use. To prolong the life of unused material consider a dry gas blanket spray to remove moisture from containers.

Cure Times

Although the resin will reach its initial cure within 5 hours at 20°C the resin system will take on average 7 days at 20°C to reach its full hardness. When the resin has only recently cured it will likely be brittle initially and will take a few hours after its initial curing time before it begins to gain strength. Slow curing polyurethanes are especially susceptible. In the case of using in a silicone mould its highly recommended to preheat the mould prior to pouring the resin to help prevent a brittle casting.

Jacket / Shell Support Casing

With additions of thickening powder the Polycraft slowset is transformed into a paste allowing for easy application onto your silicone mould to create a support casing. Typically additions of up to 10% powder to total weight of resin is sufficient to attain a good spreadable paste. Less = a loose paste, More = a thicker paste

Pigmentation

This system will readily accept pigment. Its important to use polyurethane pigments or dyes online. Other pigment systems are likely to cause curing issues. When using a dye the natural colour of the resin will likely affect the final shade, experimentation is needed as in most cases.

Safety Precautions

Safety First! Goggles, gloves and appropriate mask whilst working in a well ventilated area is highly recommended. Always read the SDS before use.

Potlife / Working Time

Once Part A & Part B have been combined and mixed thoroughly you will have approximately 14 to 18 minutes before the resin begins to set. Once the material begins to set it will quickly become unusable. Mix only what you can use within the time frame. Bulk mix quantities may reduce potlife significantly, Please reference technical overview for mix quantities and time value.

Product Overview

Polycraft SlowSet 15 is an unfilled low viscosity polyurethane resin with a long potlife designed primarily in mind for the creation of fast, low odour hard jacket / shell type casings for silicone brush mould applications with the addition of a thickening powder. Due to its longer potlife it is also suitable for intricate moulds that are time consuming to pour.