



Technical Data Sheet

Polycraft FC-3000

Two component, low viscosity unfilled polyurethane system, Hardness 65 - 70 Shore D

Polycraft FC-3000 is an odourless two component polyurethane system which is designed for thin sections, or castings up to 20mm thick that require quick demould times. FC-3000 is ideally suited for use in rotocasting applications.

Special Features

- Rapid Demould
- Odourless
- Low Viscosity
- Good Thermal Resistance

Mix Ratio

Polycraft FC-3000 is mixed with an easy to measure 1:1 by weight ratio , 1 Part A : 1 Part B by weight.

Product Data

Property	Units	FC3000A	FC3000B	Mix
Material	-	Formulated Polyol	Isocyanate	Polyurethane
Appearance	-	Pale yellow liquid	Pale yellow liquid	Pale yellow liquid
Viscosity (25°C)	mPa.s	400 – 500	100 - 140	170 – 230
Density (25°C)	g/cm ³	1.02 – 1.04	1.12 – 1.17	1.08 – 1.11
Pot Life (200g, 25°C)	Minutes	-	-	2 min 15 – 2 min 45
Demould Time (50g, 5mm, 25°C)	Minutes	-	-	20
Maximum Casting Thickness	mm	-	-	20



Cured Data

Properties	Standard	Units	FC3000
Hardness	BS 2782: Part 3: Method 365B	Shore D	65 - 70
Linear Shrinkage	500 x 50 x 05 mm	%	<0.05
Tensile Strength	BS 2782: Part 3: Method 320B	MPa	14 – 19
Elongation at Break	BS 2782: Part 3: Method 320B	%	5-25
Flexural Strength	BS 2782: Part 3: Method 335A	MPa	18 – 22
Flexural Modulus	BS 2782: Part 3: Method 335A	MPa	300 – 500
Heat Distortion Temperature (HDT)	TMA	°C	44-48

Method of Use

Mould Preparation

Ensure that the mould is clean and dry and if the mould is made from metal, wood or resin, use a release agent. For flexible moulds, use Polycraft GP-3481 silicone rubber. If the mould is wooden, ensure the wood is well sealed with varnish and/or wax based release agents.

Mould Preparation

Shake the Part A can thoroughly in order to homogenise the resin. For best results, ensure that the two components are at 20 – 25°C before mixing.

Resin Preparation

Shake the Part A can thoroughly in order to homogenise the resin. For best results, make sure the two components are at least 20°C before mixing.

Mixing Instructions

When using unfilled, add the correct amount of Part B to the Part A and stir for 30 seconds. Pour carefully in one place into the mould in order to avoid air inclusion. If the resin is over mixed or stirred after pouring into the mould there is a possibility of oily surfaces on the casting.



If using filled, we recommend the use up to 150% filler. Use Aluminium Trihydroxide for general bulking out and shrinkage reduction, or Aluminium Powder for higher temperature applications. Large quantities of material, filled or unfilled, will always produce more exotherm and will gel quicker than smaller amounts. If aiming to use 150% filler in a 200g mix, weigh out 100g of part A and mix in 150g filler. Then weigh out 100g of B and mix in 150g filler. Then mix the two components.

Curing

The casting can generally be demoulded in 10 – 25 minutes at room temperature. The precise demould time will vary with casting thickness, as thin section units will cure slower than thicker section units. When casting thin wall sections, ensure that the mould and resins are at least 20 – 25°C to facilitate a good cure and reduce the risk of brittleness.

Storage

Polycraft FC-3000 A and B should be stored in original, unopened containers between 20 and 25°C. Polycraft FC-3000 B may crystallise partially or completely if not stored at above 20°C. Like all polyurethanes, both components are moisture sensitive. Moisture absorption will cause excessive aeration in cast parts. KEEP THE PACKING TIGHTLY SEALED WHEN NOT IN USE.

Storage

All data listed relates to typical values. This data should not be considered a product specification. Our technical advice, whether verbal, or in writing is given in good faith, but without warranty – this also applies where proprietary rights of third parties are involved. It does not release you from the obligation to test the products supplied by us as to their suitability for the intended process and use.

Before using any of our products, users should familiarise themselves with the relevant Technical and MSDS.