

DuroFlex 85

Two Part, Flexible Polyurethane System
85 Shore A Hardness

DuroFlex 85 is a tough, durable, polyurethane elastomer of 85 Shore A, used for mould making or prototype parts requiring high tear strength and excellent abrasion resistance.

Special Features

- High tear strength
- Tough and durable
- Excellent abrasion resistance

Mix Ratio

Part A: Part B
By Weight 100 : 100

Product Data

| Property | Units | DF80 A | DF80 B | Mix |
|-----------------------|-------------------|-------------------|--------------|---------------------|
| Material | - | Formulated Polyol | Isocyanate | Polyurethane |
| Appearance | - | Amber Liquid | Amber Liquid | Amber Liquid |
| Viscosity (25°C) | mPa.s | 800 – 1100 | 200 – 400 | 600 – 900 |
| Density (25°C) | g/cm ³ | 1.02 – 1.07 | 1.01 – 1.06 | 1.02 – 1.07 |
| Pot life (200g, 25°C) | Minutes | - | - | 4 min 30 – 5 min 30 |
| Demould Time (25°C) | Hours | - | - | 1 |
| Full Cure (25°C) | Days | - | - | 7 |

Technical Data Sheet



Cured Properties

| Properties | Standard | Units | Result (Full Cure) |
|---------------------|-----------------|---------|--------------------|
| Hardness | BS EN ISO 868 | Shore A | 83 – 87 |
| Tensile Strength | BS EN ISO 37 | MPa | 6 – 7 |
| Elongation at Break | BS EN ISO 37 | % | 250 – 300 |
| Tear Strength | BS EN ISO 34 | kN/m | 42 – 47 |
| Linear Shrinkage | 500 x 50 x 10mm | % | < 0.2 |

Mould Preparation

Ensure that the mould is clean and dry and if the mould is made from metal, wood or resin, use a wax based release agent such as a Macwax. Wooden moulds should be sealed well before casting.

Mixing Instructions

Shake the Part A container thoroughly in order to homogenize the resin. Ensure that both components are at least 20°C before mixing.

Part A should be mixed with Part B according to the indicated mixing ratio. Both components should be thoroughly mixed, care should be taken to avoid air entrapment and make certain that material at bottom and sides of container is thoroughly stirred into the centre. After thorough mixing, the material should be poured into the mould. To avoid air entrapment, pour the material slowly, and into one place in the mould. In order to obtain a bubble free cast, the material should be degassed after mixing and pouring. Mixing, pouring and degassing must be completed within the stated pot life.

Curing and post curing

The precise demould time will vary with the casting thickness, as thin sections will cure slower than thicker sections. If cured at room temperature, the casting can generally be demoulded after 1 hour. If quicker demould times are required, the product can be cured at elevated temperatures (up to 80°C). Curing at high

Technical Data Sheet



temperatures will increase shrinkage, but will decrease demould times dramatically.

Storage

Part A and B should be stored in original, unopened containers between 20 and 25°C. Part B may crystallize 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.

If stored under the above conditions, DuroFlex 85 A and B will have a shelf life of 6 months, from the date of production.

Further Information

This data is not to be used for specifications. Values listed are for typical properties and should not be considered minimum or maximum.

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Before using any of our products, users should familiarize themselves with the relevant Technical and SDS provided