

# **PURLAST 95**

# Two Part Polyurethane Elastomer 95 Shore A Hardness

PURLAST 95 is a tough, durable, polyurethane elastomer of 95 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

Purlast 95 A: Purlast 95 B

**By Weight** 100 : 100

#### **Product Data**

| Property                  | Units             | Purlast 95 A      | Purlast 95 B | Mix                 |
|---------------------------|-------------------|-------------------|--------------|---------------------|
| Material                  | -                 | Formulated Polyol | Isocyanate   | Polyurethane        |
| Appearance                | -                 | Amber Liquid      | Amber Liquid | Amber Liquid        |
| Viscosity<br>(25°C)       | mPa.s             | 800 – 1100        | 250 – 450    | 600 – 900           |
| Density<br>(25°C)         | g/cm <sup>3</sup> | 1.02 – 1.07       | 1.02 – 1.07  | 1.02 – 1.07         |
| Pot Life<br>(200g, 25°C)  | Minutes           | -                 | -            | 4 min –<br>4 min 30 |
| Minimum Cure Time         | Hours             | -                 | -            | 1                   |
| Full Cure<br>(200g, 25°C) | Days              | -                 | -            | 7 days              |

### **Cured Properties**

| Properties          | Standard           | Units   | Typical Result<br>(Full Cure) |
|---------------------|--------------------|---------|-------------------------------|
| Hardness            | BS EN ISO 868      | Shore A | 93 – 97                       |
| Hardness            | BS EN ISO 868      | Shore D | 45                            |
| Tensile Strength    | BS EN ISO 37       | MPa     | 9 – 10                        |
| Elongation at break | BS EN ISO 37       | %       | 340 – 400                     |
| Tear Strength       | BS EN ISO 34       | kN/m    | 65 – 75                       |
| Linear Shrinkage    | 500 x 50 x<br>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 release agent such as RELEASE AGENT Z-70. Wooden moulds should be sealed well before casting. For flexible moulds, we recommend to use silicone rubber, so please contact our technical department for more advice. Never use silicone release agents if the cast units are to be painted.

#### Mixing Instructions

Shake the PURLAST 95 A container thoroughly in order to homogenize the resin. Ensure that both components are at least 20°C before mixing. PURLAST 95 A should be mixed with PURLAST 95 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 temperatures will increase shrinkage, but will decrease demould times dramatically.

## **Storage**

PURLAST 95 A and PURLAST 95 B should be stored in original, unopened containers between 20 and 25°C. PURLAST 95 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, PURLAST 95 A and B will have a shelf life of 6 months, from the date of production.