

**EPAMOULD DPS 80 A** is a high performance polyester based thermoplastic polyurethane, with excellent mechanical properties and resistance to hydrolysis. EPAMOULD DPS 80 A is particularly suitable for injection moulding of engineered parts and sport footwear soles.

### **Typical properties**

|                                    |          |                         |
|------------------------------------|----------|-------------------------|
| Density                            | ISO 1183 | 1,18 Kg/dm <sup>3</sup> |
| Hardness                           | ISO 868  | 81 Shore A              |
| Tensile strength                   | EN 12803 | 43 MPa                  |
| Elongation at break                | EN 12803 | 580 %                   |
| Tear strength                      | ISO 34   | 90 KN/m                 |
| Abrasion resistance                | EN 12770 | 30 mm <sup>3</sup>      |
| Compression set @ 23°C             | ISO 815  | 29 %                    |
| Compression set @ 70°C             | ISO 815  | 42 %                    |
| Glass transition temperature (Tg)* | DMA      | - 40 °C                 |

\* (Maximum of Loss modulus curve in *Dynamic Mechanical Analysis*)

The values quoted have been measured using standard test specimens at room temperature. The figures should be considered as indicative values only and not as binding minimum values. Actual properties of TPU parts can be affected to a considerable extent by the design of the mould, the processing conditions and the additives used. For these reasons they have to be determined on the actual TPU articles on a statistical bases. Full-scale testing and end product performance are full responsibility of the user.

### **Packaging and storage**

**EPAMOULD DPS 80 A** is supplied in 20 kg aluminium bags. Depending on actual transport conditions pallets can be composed by 30 or 40 bags (870 or 1000 Kg). Epamould TPUs may be stored for 12 months from the date of shipment, sealed in the original package.

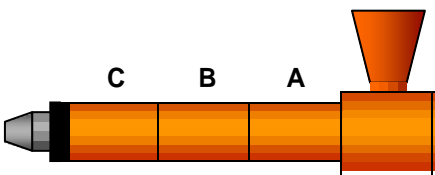
### Material preparation

To ensure trouble free processing and high quality injection moulded parts it is preferable to dry **EPAMOULD DPS 1. A** before use. The recommended drying conditions are 2 hours at 90 °C in a desiccant dryer.

### Equipment

Standard injection moulding machines with general purpose screws of 40 to 60 mm diameter and an L/D ratio of 20 : 1 to 30 : 1 are normally suitable for the injection moulding of **EPAMOULD DPS 1. A**.

### Recommended injection moulding parameters

| INJECTION TEMPERATURES  |        |    |           |
|---|--------|----|-----------|
|  | ZONE A | °C | 190 – 210 |
|   | ZONE B | °C | 200 – 210 |
|   | ZONE C | °C | 190 – 210 |
|   | NOZZLE | °C | 190 – 210 |
| MOULD TEMPERATURE   |        | °C | 20 – 20   |

### Health and safety advice

People handling this product must be informed of all the necessary precautions that must be taken. These are detailed in the relevant Material Safety Data Sheet which will be provided by Epaflex Polyurethanes srl.

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