



GST3D TPU FLEX 89A is a high-performance polyester based thermoplastic polyurethane with excellent mechanical properties.

It is particularly suitable for extrusion of hoses, tubes, pipes, profiles and for injection moulding of technical articles.

Typical properties

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|---|-------------|-------------------------|
| Specific gravity | ASTM D -792 | 1.20 Kg/dm ³ |
| Hardness | ISO 868 | 89 Shore A |
| Mod. @ 50% of elongation | EN 12803 | 7.3 MPa |
| Mod. @ 100% of elongation | EN 12803 | 8.5 MPa |
| Mod. @ 300% of elongation | EN 12803 | 19.0 MPa |
| Tensile strength | EN 12803 | 50 MPa |
| Elongation at break | EN 12803 | 480 % |
| Tear strength | ISO 34 | 110 KN/m |
| Abrasion resistance | EN 12770 | 25 mm ³ |
| Softening temperature (VICAT) (1 kg, 50 °C/h) | ISO 306 | 95 °C |
| Glass transition temperature (Tg)* | DMA | - 35 °C |
| MFI (210 °C, 5 kg) | ISO 1133 | 15 - 35 |

*(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 base. Full-scale testing and end product performance are full responsibility of the user.