



OnFlex™ U 5370A-S0015

Thermoplastic Elastomer

Key Characteristics

Product Description

OnFlex™-U thermoplastic elastomer compounds are based on thermoplastic polyurethane elastomers (TPE-U). The OnFlex™-U 5300 series are based upon alloys of SEBS and TPU, combining the advantages of both raw materials, for example the good processability and soft haptic of a TPE-S with the excellent mechanical properties and abrasion resistance of a TPE-U. OnFlex™-U 5300 compounds are formulated to deliver very good scratch resistance, a wide hardness range and good chemical resistance.

General

| | | | |
|-----------------------|--|--|---------------------|
| Material Status | • Commercial: Active | | |
| Regional Availability | • Africa & Middle East • Asia Pacific | • Europe • Latin America | • North America |
| Features | • Abrasion Resistant | • Good Scratch Resistance | • Oil Resistant |
| Uses | • Automotive Applications • Consumer Applications | • General Purpose • Industrial Applications | • Power/Other Tools |
| RoHS Compliance | • RoHS Compliant | | |
| Forms | • Pellets | | |
| Processing Method | • Extrusion | • Injection Molding | |

Technical Properties ¹

| Physical | Typical Value (English) | Typical Value (SI) | Test Method |
|------------------------------|--|--|-------------|
| Density | 1.05 g/cm ³ | 1.05 g/cm ³ | ISO 1183 |
| Mechanical | Typical Value (English) | Typical Value (SI) | Test Method |
| Abrasion Resistance | 57.0 mm ³ | 57.0 mm ³ | ISO 47469 |
| Elastomers | Typical Value (English) | Typical Value (SI) | Test Method |
| Tensile Stress (100% Strain) | 580 psi | 4.00 MPa | ISO 37 |
| Tensile Stress (300% Strain) | 1350 psi | 9.30 MPa | ISO 37 |
| Tensile Stress (Break) | 3630 psi | 25.0 MPa | ISO 37 |
| Tensile Elongation (Break) | 520 % | 520 % | ISO 37 |
| Hardness | Typical Value (English) | Typical Value (SI) | Test Method |
| Shore Hardness (Shore A) | 70 | 70 | ISO 868 |
| Additional Information | Typical Value (English) | Typical Value (SI) | |
| Generic Material Type | Thermoplastic Polyurethane Elastomer (TPU) | Thermoplastic Polyurethane Elastomer (TPU) | |

Properties are measured using injection molded plaques.

Processing Information

| Injection | Typical Value (English) | Typical Value (SI) |
|------------------------|-------------------------|--------------------|
| Drying Temperature | 212 °F | 100 °C |
| Drying Time | 2.0 hr | 2.0 hr |
| Processing (Melt) Temp | 338 to 410 °F | 170 to 210 °C |
| Mold Temperature | 86 to 140 °F | 30 to 60 °C |
| Injection Rate | Slow | Slow |

Notes

¹ Typical values are not to be construed as specifications.