

PolyOne OnFlex™ U 5380A-S0013 Thermoplastic Elastomer (TPE)

Category : Polymer , Thermoplastic , Elastomer, TPE

Material Notes:

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. Properties are measured using injection molded plaques. Information provided by PolyOne

Order this product through the following link:

http://www.lookpolymers.com/polymer_PolyOne-OnFlex-U-5380A-S0013-Thermoplastic-Elastomer-TPE.php

| Physical Properties | Metric | English | Comments |
|---------------------|-----------|---------------------------|----------|
| Density | 1.09 g/cc | 0.0394 lb/in ³ | ISO 1183 |

| Mechanical Properties | Metric | English | Comments |
|---------------------------|--|---|-------------------------------|
| Hardness, Shore A | 80 | 80 | ISO 868 |
| Tensile Strength at Break | 33.0 MPa | 4790 psi | ISO 37 |
| Tensile Stress | 4.60 MPa | 667 psi | ISO 37 |
| | @Strain 100 % | @Strain 100 % | |
| Elongation at Break | 10.4 MPa | 1510 psi | ISO 37 |
| | @Strain 300 % | @Strain 300 % | |
| Abrasion | 55 | 55 | [mm ³]; ISO 47469 |
| Compression Set | 31 % | 31 % | ISO 815 |
| | @Temperature 23.0 °C, Time 259000 sec | @Temperature 73.4 °F, Time 72.0 hour | |
| Compression Set | 69 % | 69 % | ISO 815 |
| | @Temperature 70.0 °C, Time 79200 sec | @Temperature 158 °F, Time 22.0 hour | |

| Processing Properties | Metric | English | Comments |
|-----------------------|----------------|---------------|----------|
| Melt Temperature | 170 - 210 °C | 338 - 410 °F | |
| Mold Temperature | 30.0 - 60.0 °C | 86.0 - 140 °F | |
| Drying Temperature | 100 °C | 212 °F | |

| Processing Properties | Metric | English | Comments |
|-------------------------------|--|---------|-----------------|
| Descriptive Properties | Value | | Comments |
| Features | Good Abrasion Resistance | | |
| | Oil Resistant | | |
| | Scratch Resistant | | |
| Forms | Pellets | | |
| Generic Material | TPE | | |
| Generic Material Type | Thermoplastic Polyurethane Elastomer (TPU) | | |
| Generic Name | Thermoplastic Elastomer (TPE) | | |
| Injection Rate | Slow | | |
| Manufacturer / Supplier | GLS Thermoplastic Elastomers | | |
| Processing Method | Extrusion | | |
| | Injection Molding | | |
| Regional Availability | Africa & Middle East | | |
| | Asia Pacific | | |
| | Europe | | |
| | North America | | |
| | South America | | |
| RoHS Compliance | RoHS Compliant | | |
| Uses | Automotive Applications | | |
| | Consumer Applications | | |
| | General Purpose | | |
| | Industrial Applications | | |
| | Power/Other Tools | | |

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