OnFlex™ U 5355A-S0014

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	1.02 g/cm³	1.02 g/cm³	ISO 1183
Mechanical	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Abrasion Resistance	59.0 mm³	59.0 mm³	ISO 47469
Elastomers	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Tensile Stress (100% Strain)	334 psi	2.30 MPa	ISO 37
Tensile Stress (300% Strain)	638 psi	4.40 MPa	ISO 37
Tensile Stress (Break)	2130 psi	14.7 MPa	ISO 37
Tensile Elongation (Break)	630 %	630 %	ISO 37
Compression Set (158°F (70°C), 22 hr)	80 %	80 %	ISO 815
Hardness	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Shore Hardness (Shore A, 10 sec)	55	55	ISO 48-4
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.

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