OnFlex™ U 5380A-S0013

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	• Good Abrasion Resistance	• Oil Resistant	• Scratch 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	1.09 g/cm³	1.09 g/cm³	ISO 1183
Mechanical	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Abrasion Resistance	55.0 mm³	55.0 mm³	ISO 47469
Elastomers	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Tensile Stress (100% Strain)	667 psi	4.60 MPa	ISO 37
Tensile Stress (300% Strain)	1510 psi	10.4 MPa	ISO 37
Tensile Stress (Break)	4790 psi	33.0 MPa	ISO 37
Tensile Elongation (Break)	540 %	540 %	ISO 37
Compression Set			ISO 815
73°F (23°C), 72 hr	31 %	31 %	
158°F (70°C), 22 hr	69 %	69 %	
Hardness	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Shore Hardness (Shore A)	80	80	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	86.0 to 140 °F	30.0 to 60.0 °C
Injection Rate	Slow	Slow

Notes

[1] Typical values are not to be construed as specifications.

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