

PolyOne OnFlex™ U 5470A-E0083 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 5400 series are based upon alloys of SEBS and aliphatic 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 5400 compounds are formulated to deliver very good scratch resistance, a wide hardness range, good chemical resistance, and good light stability. 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-5470A-E0083-Thermoplastic-Elastomer-TPE.php

Physical Properties	Metric	English	Comments
Density	1.08 g/cc	0.0390 lb/in ³	ISO 1183

Mechanical Properties	Metric	English	Comments
Hardness, Shore A	70	70	ISO 868
Tensile Strength at Break	21.3 MPa	3090 psi	Type 2, 200 mm/min Across Flow; ISO 37
	@Thickness 2.00 mm, Temperature 23.0 °C	@Thickness 0.0787 in, Temperature 73.4 °F	
	22.2 MPa	3220 psi	Type 2, 200 mm/min; Flow; ISO 37
	@Thickness 2.00 mm, Temperature 23.0 °C	@Thickness 0.0787 in, Temperature 73.4 °F	
Elongation at Break	480 %	480 %	Type 2, 200 mm/min Across Flow; ISO 37
	@Thickness 2.00 mm, Temperature 23.0 °C	@Thickness 0.0787 in, Temperature 73.4 °F	
	490 %	490 %	Type 2, 200 mm/min; Flow; ISO 37
	@Thickness 2.00 mm, Temperature 23.0 °C	@Thickness 0.0787 in, Temperature 73.4 °F	
Tear Strength	56.0 kN/m	320 pli	Method A, Trouser, 500 mm/min Across Flow; ISO 34-1
	@Thickness 2.00 mm, Temperature 23.0 °C	@Thickness 0.0787 in, Temperature 73.4 °F	
	59.0 kN/m	337 pli	Method A, Trouser, 500 mm/min; Flow; ISO 34-1
	@Thickness 2.00 mm, Temperature 23.0 °C	@Thickness 0.0787 in, Temperature 73.4 °F	
Abrasion	35	35	[mm ³]; DIN 53516

Processing Properties	Metric	English	Comments
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Processing Properties	Metric ^{155-200 °C}	English ^{300-400 °F}	Comments
Mold Temperature	30.0 - 60.0 °C	86.0 - 140 °F	
Drying Temperature	100 °C	212 °F	
Dry Time	2.00 hour	2.00 hour	

Descriptive Properties	Value	Comments
Appearance	Matte Finish	
Features	Good Abrasion Resistance	
	Good UV Resistance	
	Oil Resistant	
	Scratch Resistant	
Fogging	1.1 mg	DIN 75201B; 100°C
Forms	Pellets	
Generic Material	TPE	
Generic Material Type	Thermoplastic Polyurethane Elastomer Alloy (TPU Alloy)	
Generic Name	Thermoplastic Elastomer (TPE)	
Injection Rate	Slow	
Manufacturer / Supplier	GLS Thermoplastic Elastomers	
Odor rating	2.3	VDA 270
Processing Method	Calendering	
	Film Extrusion	
	Injection Molding	
Regional Availability	Africa & Middle East	
	Asia Pacific	
	Europe	
	North America	
	South America	
RoHS Compliance	RoHS Compliant	

Uses Descriptive Properties	Automotive Applications Value	Comments
	Consumer Applications	
	General Purpose	
	Industrial Applications	
	Power/Other Tools	

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