

PolyOne Versaflex™ HC 2110-57B Thermoplastic Elastomer (TPE)

Category : Polymer , Thermoplastic , Elastomer , TPE

Material Notes:

Versaflex™ HC 2110-57B is a TPE designed for use in the healthcare industry offering low stiction and good compression set. New Product. Commercial specifications have not been established. - Bonds to Polypropylene - ETO sterilizable and AutoclavablePurge thoroughly before and after use of this product with a low flow (0.5 - 2.5 MFR) polyethylene (PE) or polypropylene (PP). Versaflex™ HC 2110-57B has excellent melt stability. Maximum residence times may vary, depending on the size of the barrel. Generally, the barrel should be emptied if it is idle for periods of 8 - 10 minutes or longer. Drying is not Required Injection Speed: 0.5 to 2.5 in/sec Hold Time (Thick Part): 2 to 7 sec Hold Time (Thin Part): 1 to 3 secInformation provided by PolyOne

Order this product through the following link:

http://www.lookpolymers.com/polymer_PolyOne-Versaflex-HC-2110-57B-Thermoplastic-Elastomer-TPE.php

Physical Properties	Metric	English	Comments
Specific Gravity	1.01 g/cc	1.01 g/cc	ASTM D792
Viscosity	7.70e+6 cP	7.70e+6 cP	ASTM D3835
	@Shear Rate 11200 1/s, Temperature 200 °C	@Shear Rate 11200 1/s, Temperature 392 °F	
Linear Mold Shrinkage, Flow	0.0070 - 0.012 cm/cm	0.0070 - 0.012 in/in	ASTM D955

Mechanical Properties	Metric	English	Comments
Hardness, Shore A	59	59	10 sec; ASTM D2240
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Tensile Strength at Break	3.70 MPa	537 psi	Die C2 hr; ASTM D412
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Tensile Stress	2.54 MPa	368 psi	Die C2 hr; ASTM D412
	@Strain 100 %, Temperature 23.0 °C	@Strain 100 %, Temperature 73.4 °F	
	3.85 MPa	558 psi	Die C2 hr; ASTM D412
	@Strain 300 %, Temperature 23.0 °C	@Strain 300 %, Temperature 73.4 °F	
Elongation at Break	350 %	350 %	Die C2 hr; ASTM D412
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Tear Strength	25.7 kN/m	147 pli	ASTM D624
Compression Set	20 %	20 %	ASTM D395B

Mechanical Properties	Metric @Temperature 21.0 °C, Time 79200 sec	English @Temperature 69.8 °F, Time 22.0 hour	Comments
	28 %	28 %	
	@Temperature 70.0 °C, Time 79200 sec	@Temperature 158 °F, Time 22.0 hour	ASTM D395B
	37 %	37 %	
	@Temperature 100 °C, Time 79200 sec	@Temperature 212 °F, Time 22.0 hour	ASTM D395B

Processing Properties	Metric	English	Comments
Rear Barrel Temperature	166 - 182 °C	331 - 360 °F	
Middle Barrel Temperature	193 - 216 °C	379 - 421 °F	
Front Barrel Temperature	204 - 227 °C	399 - 441 °F	
Nozzle Temperature	204 - 232 °C	399 - 450 °F	
Mold Temperature	12.8 - 32.2 °C	55.0 - 90.0 °F	
Screw Speed	80 - 120 rpm	80 - 120 rpm	

Descriptive Properties	Value	Comments
Agency Ratings	ISO 10993 Part 4	
	ISO 10993 Part 5	
	USP Class VI	
Appearance	Black	
Features	Good Sterilizability	
	Low Compression Set	
	Low Friction	
Forms	Pellets	
Generic Material	TPE	
Generic Name	Thermoplastic Elastomer (TPE)	
Manufacturer / Supplier	GLS Thermoplastic Elastomers	
Processing Method	Injection Molding	
Regional Availability	Africa & Middle East	

Descriptive Properties	Asia Pacific Value	Comments
	Europe	
	North America	
	South America	
RoHS Compliance	RoHS Compliant	
Uses	Gaskets	
	Medical/Healthcare Applications	
	Overmolding	
	Plugs	

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