DSM Arnitel® PB581-H Polyether Ester Elastomer (European Grade) (discontinued **)

Category : Polymer , Thermoplastic , Elastomer, TPE , Polyester TPE , Polyester, TP , Polyether Ester Elastomer

Material Notes:

Product description: Arnitel® combines the advantages of engineering thermoplastics, being easy to process with excellent mechanical properties, at the same time with the flexibility of rubbers.Arnitel does not require vulcanization. This leads to substantial reductions in part cost. Arnitel can be used over a wide range of temperatures. Arnitel has exceptional fatigue, creep resistance and resistance to oils, greases and many other chemicals.Characteristics of Arnitel:Excellent strength over a wide range of temperaturesExcellent dynamic properties e.g. creep and fatigueHigh heat resistanceExceptional resistance to oils and greasesGood chemical resistanceHigh degree of versatility in processingEasy coloring using masterbatchesSurface quality from high gloss to texturedExcellent heat resistance (long term 165°C)Good electrical insulation propertiesLow moisture absorption, excellent dimensional stabilityEasy flow, fast cooling timesTypical Applications: Automotive: Arnitel® is extensively used in the automotive industry for applications requiring exceptional fatigue resistance and resistance to oil and greases. Examples are: Rack and Pinion Bellows, Constant Velocity Joint Boots (CVJ Boots), Air brake tubings.Arnitel in the Electronic and Consumer Goods Industry: Arnitel® finds enormous potential and is also widely used in the consumer electronics by some of the world's best companies. Arnitel® is the best choice for low noise gears where their exceptional processability without any defects such as flash, makes it the material solution of choice. Arnitel® is also used in highly demanding applications such as in mobile phone antennas.Arnitel® has exceptional flexibility and can perform or even outperform functions that normally require conventional rubbers. Available in a wide range of hardnesses, Arnitel can replace metals, thermoplastics, leather and rubber, often with a reduction in finished part costs.Information provided by DSM.

Order this product through the following link:
http://www.lookpolymers.com/polymer_DSM-Arnitel-PB581-H-Polyether-Ester-Elastomer-European-Grade-nbspdiscontinued-.php

Physical Properties	Metric	English	Comments
Density	1.23 g/cc	0.0444 lb/in³	ISO 1183
Melt Flow	7.38 g/10 min @Load 10.0 kg, Temperature 230 °C	7.38 g/10 min @Load 22.0 lb, Temperature 446 °F	Calculated from Volume Flow Rate of 6 cm³/10min.; ISO 1133

Mechanical Properties	Metric	English	Comments
Hardness, Shore D	56	56	3s; ISO 868
Tensile Strength at Break	25.5 MPa	3700 psi	ISO 527-1/-2
Tensile Strength, Yield	8.50 MPa @Strain 5.00 %	1230 psi @Strain 5.00 %	ISO 527-1/-2
	12.7 MPa @Strain 10.0 %	1840 psi @Strain 10.0 %	ISO 527-1/-2
	17.8 MPa	2580 psi	

Mechanical Properties	Metric	English	Comments
	@Strain 50.0 %	@Strain 50.0 %	ISO 527-1/-2
	20.0 MPa @Strain 100 %	2900 psi @Strain 100 %	ISO 527-1/-2
Elongation at Break	185 %	185 %	ISO 527-1/-2
Tensile Modulus	0.280 GPa	40.6 ksi	ISO 527-1/-2
Izod Impact, Notched (ISO)	NB @Temperature 23.0 °C	NB @Temperature 73.4 °F	ISO 180/1A
Charpy Impact, Notched	1.40 J/cm² @Temperature -30.0 °C	6.66 ft-lb/in² @Temperature -22.0 °F	ISO 179/1eA
	NB @Temperature 23.0 °C	NB @Temperature 73.4 °F	ISO 179/1eA

Thermal Properties	Metric	English	Comments
Melting Point	220 °C	428 °F	10°C/min; ISO 11357-1/-3
Deflection Temperature at 0.46 MPa (66 psi)	100 °C	212 °F	ISO 75-1/-2
Vicat Softening Point	105 °C	221 °F	50°C/h 50N; ISO 306
	205 °C	401 °F	50°C/h 10N; ISO 306

Descriptive Properties	Value	Comments
Blow Molding	Yes	
Heat stabilized or stable to heat	Yes	
High impact or impact modified	Yes	
Without Fillers	Yes	

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