

## DSM Arnitel® UM622 General Purpose Grade Copolyester Elastomer (North America) (discontinued \*\*)

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

### 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 temperatures Excellent dynamic properties e.g. creep and fatigue High heat resistance Exceptional resistance to oils and greases Good chemical resistance High degree of versatility in processing Easy coloring using masterbatches Surface quality from high gloss to textured Excellent heat resistance (long term 165°C) Good electrical insulation properties Low moisture absorption, excellent dimensional stability Easy flow, fast cooling times **Typical 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-UM622-General-Purpose-Grade-Copolyester-Elastomer-North-America-nbspdiscontinued-.php](http://www.lookpolymers.com/polymer_DSM-Arnitel-UM622-General-Purpose-Grade-Copolyester-Elastomer-North-America-nbspdiscontinued-.php)

Physical Properties	Metric	English	Comments
Density	1.27 g/cc	0.0459 lb/in <sup>3</sup>	ISO 1183
Water Absorption	0.60 %	0.60 %	Sim. to ISO 62
Moisture Absorption at Equilibrium	0.25 %	0.25 %	Humidity Absorption; Sim. to ISO 62
Melt Flow	38.1 g/10 min @Load 2.16 kg, Temperature 240 °C	38.1 g/10 min @Load 4.76 lb, Temperature 464 °F	Calculated from Volume Flow Rate of 30 cm <sup>3</sup> /10 min; ISO 1133

Mechanical Properties	Metric	English	Comments
Hardness, Shore D	62	62	3 s; ISO 868
Tensile Strength at Break	30.0 MPa	4350 psi	ISO 527-1/-2
Tensile Strength, Yield	14.0 MPa @Strain 5.00 %	2030 psi @Strain 5.00 %	ISO 527-1/-2

Mechanical Properties	19.0 MPa Metric	2760 psi English	Comments 2
	@Strain 10.0 %	@Strain 10.0 %	
	21.0 MPa	3050 psi	ISO 527-1/-2
	@Strain 50.0 %	@Strain 50.0 %	
Elongation at Break	325 %	325 %	ISO 527-1/-2
Tensile Modulus	0.350 GPa	50.8 ksi	ISO 527-1/-2
Izod Impact, Notched (ISO)	NB	NB	ISO 180/1A
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Charpy Impact, Notched	0.600 J/cm <sup>2</sup>	2.86 ft-lb/in <sup>2</sup>	ISO 179/1eA
	@Temperature -30.0 °C	@Temperature -22.0 °F	
	NB	NB	ISO 179/1eA
	@Temperature 23.0 °C	@Temperature 73.4 °F	

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	160 µm/m-°C	88.9 µin/in-°F	ISO 11359-1/-2
	@Temperature 20.0 °C	@Temperature 68.0 °F	
Melting Point	220 °C	428 °F	10°C/min; ISO 11357-1/-3
Deflection Temperature at 0.46 MPa (66 psi)	80.0 °C	176 °F	ISO 75-1/-2
Vicat Softening Point	85.0 °C	185 °F	50°C/h 50N; ISO 306
Flammability, UL94	HB	HB	IEC 60695-11-10
	@Thickness 1.60 mm	@Thickness 0.0630 in	

Electrical Properties	Metric	English	Comments
Comparative Tracking Index	600 V	600 V	IEC 60112

Descriptive Properties	Value	Comments
Coating	Yes	
Film Extrusion	Yes	
Heat stabilized or stable to heat	Yes	
High impact or impact modified	Yes	
Injection molding	Yes	

Descriptive Properties	Value	Comments
Other Extrusion	Yes	
Sheet extrusion	Yes	
U.V. stabilized or stable to weather	Yes	
Without Fillers	Yes	

## Contact Songhan Plastic Technology Co.,Ltd.

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