

Evonik Corporation Vestamid® E47-S3 Heat & Light Stabilized Nylon 12/PEBA Elastomer

Category : Polymer , Thermoplastic , Elastomer, TPE , Nylon , Nylon 12 , Polyether Block Amide (PEBA)

Material Notes:

Description: Compared to other contending thermoplastic elastomers, PA 12 elastomers are distinguished by the following properties: They have low density. They are highly resistant to chemicals and solvents. They are easy to process and color and are easy to overmold. They can be decorated easily by means of heat transfer printing. They have excellent impact strength at low temperatures. Their hardness and flexibility can be varied over a wide range. They have high elasticity and good recovery. Their mechanical properties are only slightly temperature-dependent. They are free of volatile or migrating plasticizers. Applications: sports shoe soles, packaging films, non-skid surfaces, sports glasses, protective goggles. Information provided by degussa.

Order this product through the following link:

http://www.lookpolymers.com/polymer_Evonik-Corporation-Vestamid-E47-S3-Heat-Light-Stabilized-Nylon-12PEBA-Elastomer.php

Physical Properties	Metric	English	Comments
Density	1.02 g/cc	0.0368 lb/in ³	ISO 1183
Water Absorption at Saturation	1.0 %	1.0 %	ISO 62
Viscosity Test	190 cm ³ /g	190 cm ³ /g	Viscosity Number; ISO 307
Linear Mold Shrinkage	0.0060 - 0.010 cm/cm @Thickness 3.00 mm	0.0060 - 0.010 in/in @Thickness 0.118 in	sheet with film gate at rim, mold temperature 80°C
Linear Mold Shrinkage, Transverse	0.0090 - 0.015 cm/cm @Thickness 3.00 mm	0.0090 - 0.015 in/in @Thickness 0.118 in	sheet with film gate at rim, mold temperature 80°C

Mechanical Properties	Metric	English	Comments
Hardness, Shore D	47	47	ISO 868
Tensile Strength at Break	23.0 MPa	3340 psi	ISO 527-1, ISO 527-2
Elongation at Break	>= 200 %	>= 200 %	ISO 527-1, ISO 527-2
Tensile Modulus	0.120 GPa	17.4 ksi	ISO 527-1, ISO 527-2
50% Modulus	0.0120 GPa	1.74 ksi	ISO 527-1, ISO 527-2
Charpy Impact Unnotched	NB @Temperature -30.0 °C	NB @Temperature -22.0 °F	ISO 179/1eU
	NB @Temperature 23.0 °C	NB @Temperature 73.4 °F	ISO 179/1eU
	NB	NB	

Charpy Impact, Notched Mechanical Properties	Metric @ Temperature -30.0 °C	English @ Temperature -22.0 °F	ISO 179/1eA Comments
	NB	NB	ISO 179/1eA
	@ Temperature 23.0 °C	@ Temperature 73.4 °F	
Tensile Creep Modulus, 1000 hours	90.0 MPa	13100 psi	ISO 899-1

Thermal Properties	Metric	English	Comments
CTE, linear	230 µm/m-°C	128 µin/in-°F	Longitudinal; ISO 11359
	@ Temperature 23.0 - 55.0 °C	@ Temperature 73.4 - 131 °F	
CTE, linear, Transverse to Flow	210 µm/m-°C	117 µin/in-°F	ISO 11359
	@ Temperature 23.0 - 55.0 °C	@ Temperature 73.4 - 131 °F	
Deflection Temperature at 0.46 MPa (66 psi)	65.0 °C	149 °F	ISO 75-2
Deflection Temperature at 1.8 MPa (264 psi)	45.0 °C	113 °F	ISO 75-1
Vicat Softening Point	70.0 °C	158 °F	50N; ISO 306
	140 °C	284 °F	10N; ISO 306
Flammability, UL94	HB	HB	
	@ Thickness 1.60 mm	@ Thickness 0.0630 in	

Electrical Properties	Metric	English	Comments
Volume Resistivity	1.00e+11 ohm-cm	1.00e+11 ohm-cm	Spec.; IEC 60093
Surface Resistance	1.00e+13 ohm	1.00e+13 ohm	Spec.; IEC 60093
Dielectric Constant	4.7	4.7	IEC 60250
	@ Frequency 1e+6 Hz	@ Frequency 1e+6 Hz	
	8.5	8.5	IEC 60250
	@ Frequency 100 Hz	@ Frequency 100 Hz	
Dielectric Strength	37.0 kV/mm	940 kV/in	K20/P50; IEC 60243-1
Dissipation Factor	0.12	0.12	IEC 60250
	@ Frequency 100 Hz	@ Frequency 100 Hz	
	0.13	0.13	IEC 60250
	@ Frequency 1e+6 Hz	@ Frequency 1e+6 Hz	

Contact Songhan Plastic Technology Co.,Ltd.

Website : www.lookpolymers.com

Email : sales@lookpolymers.com

Tel : +86 021-51131842

Mobile : +86 13061808058

Skype : lookpolymers

Address : United North Road 215,Fengxian District, Shanghai City,China