

Styrolution Terluran® HI-10 ABS

Category : Polymer , Thermoplastic , ABS Polymer , Acrylonitrile Butadiene Styrene (ABS), Impact Grade, Molded

Material Notes:

Terluran HI-10 is an injection molding and extrusion grade of ABS with very high toughness and medium flow. Information provided by STYROLUTION, which is a joint venture between BASF and INEOS.

Order this product through the following link:

http://www.lookpolymers.com/polymer_Styrolution-Terluran-HI-10-ABS.php

Physical Properties	Metric	English	Comments
Density	1.03 g/cc	0.0372 lb/in ³	ISO 1183
Water Absorption	1.03 %	1.03 %	ISO 62
Moisture Absorption at Equilibrium	0.21 %	0.21 %	23°C/50% R.H.; ISO 62
Linear Mold Shrinkage	0.0055 cm/cm	0.0055 in/in	ASTM Data; MD
Melt Flow	0.10 g/10 min	0.10 g/10 min	ASTM Test
	@Load 5.00 kg, Temperature 200 °C	@Load 11.0 lb, Temperature 392 °F	
	1.7 g/10 min	1.7 g/10 min	ASTM Test
	@Load 3.80 kg, Temperature 230 °C	@Load 8.38 lb, Temperature 446 °F	
	8.0 g/10 min	8.0 g/10 min	ISO 1133
	@Load 10.0 kg, Temperature 220 °C	@Load 22.0 lb, Temperature 428 °F	
	8.0 g/10 min	8.0 g/10 min	ASTM Test
	@Load 10.0 kg, Temperature 220 °C	@Load 22.0 lb, Temperature 428 °F	

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell R	95	95	ASTM Test
Tensile Strength, Yield	38.0 MPa	5510 psi	50mm/min; ISO 527
	43.0 MPa	6240 psi	2 in/min; ASTM Test
Elongation at Break	9.0 %	9.0 %	50mm/min, Nominal strain; ISO 527
Elongation at Yield	2.8 %	2.8 %	50mm/min; ISO 527
	3.5 %	3.5 %	2 in/min; ASTM Test
Tensile Modulus	1.90 GPa	276 ksi	1mm/min; ISO 527

Mechanical Properties	Metric	English	Comments
Flexural Strength	56.0 MPa	8120 psi	ISO Data
	66.0 MPa	9570 psi	ASTM Test
Flexural Modulus	2.05 GPa	297 ksi	ASTM Test
Izod Impact, Notched	1.20 J/cm	2.25 ft-lb/in	ASTM Test
	@Temperature -30.0 °C	@Temperature -22.0 °F	
	1.80 J/cm	3.37 ft-lb/in	ASTM Test
	@Temperature -18.0 °C	@Temperature -0.400 °F	
	4.50 J/cm	8.43 ft-lb/in	ASTM Test
	@Thickness 3.17 mm	@Thickness 0.125 in	
Izod Impact, Notched (ISO)	36.0 kJ/m ²	17.1 ft-lb/in ²	ISO Test
Charpy Impact Unnotched	NB	NB	ISO 179
	14.0 J/cm ²	66.6 ft-lb/in ²	ISO 179
	@Temperature -30.0 °C	@Temperature -22.0 °F	
Charpy Impact, Notched	3.50 J/cm ²	16.7 ft-lb/in ²	ISO 179
	1.30 J/cm ²	6.19 ft-lb/in ²	ISO 179
	@Temperature -30.0 °C	@Temperature -22.0 °F	

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	95.0 Åµm/m-Å°C	52.8 Åµin/in-Å°F	ISO 11359
Deflection Temperature at 0.46 MPa (66 psi)	94.0 Å°C	201 Å°F	ASTM Test
	101 Å°C	214 Å°F	ISO 75
	102 Å°C	216 Å°F	annealed; ASTM Test
Deflection Temperature at 1.8 MPa (264 psi)	86.0 Å°C	187 Å°F	ASTM Test
	96.0 Å°C	205 Å°F	ISO 75
	98.0 Å°C	208 Å°F	annealed; ASTM Test
Vicat Softening Point	94.0 Å°C	201 Å°F	Rate "A" Loading 2 (50 degC/h 50N); ASTM Test

Thermal Properties	Metric (34.0 A °C)	English (20 °A °F)	Comments (30 A °C/117 50N) - B/50; ISO 306
Flammability, UL94	HB	HB	
	@Thickness 1.50 mm	@Thickness 0.0591 in	
	HB	HB	
	@Thickness 0.800 mm	@Thickness 0.0315 in	

Electrical Properties	Metric	English	Comments
Volume Resistivity	>= 1.00e+13 ohm-cm	>= 1.00e+13 ohm-cm	IEC 60093
Dielectric Constant	2.8	2.8	IEC 60250
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	
	2.9	2.9	IEC 60250
	@Frequency 100 Hz	@Frequency 100 Hz	
Dielectric Strength	40.0 kV/mm	1020 kV/in	IEC 60243-1
Dissipation Factor	0.0054	0.0054	IEC 60250
	@Frequency 100 Hz	@Frequency 100 Hz	
	0.0082	0.0082	IEC 60250
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	
Comparative Tracking Index	600 V	600 V	IEC 60112

Processing Properties	Metric	English	Comments
Melt Temperature	250 Â°C	482 Â°F	Injection molding
Mold Temperature	102 Â°C	216 Â°F	Ejection temperature
Injection Velocity	60.0 mm/sec	2.36 in/sec	Injection molding

Descriptive Properties	Value	Comments
Color	Natural	
Commercial Status	North America and Europe	
FDA	Yes	
Form	Pellets	
Impact Modified	Yes	

Descriptive Properties	Value	Comments
NSF Std. 61	No	
Primary Processing Technique	Injection Molding	
Processing	Injection Molding	
	Other Extrusion	
	Profile Extrusion	
	Sheet Extrusion	
UL.UL-C	Yes	
USP Class VI	No	

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