

Terluran HI-12

Acrylonitrile Butadiene Styrene (ABS)

TECHNICAL DATASHEET

DESCRIPTION

Terluran® HI-12 is an injection molding grade of ABS with a very high toughness and easy flow.

FEATURES

- Very high toughness
- Easy flowing
- UL 94 HB (1.6 & 3.2 mm)

APPLICATIONS

- Home appliances
- Electrical and electronics
- Helmets
- Heel top
- Motor bicycle parts

Property, Test Condition	Standard	Unit	Values
Rheological Properties			
Melt Volume Rate 220 °C/10 kg	ISO 1133	cm ³ /10 min	14
Mechanical Properties			
Izod Notched Impact Strength, 23 °C (73 °F)	ASTM D 256	kJ/m ²	35
Izod Notched Impact Strength, 23 °C	ISO 180/A	kJ/m ²	31
Izod Notched Impact Strength, -30 °C	ISO 180/A	kJ/m ²	11
Charpy Notched Impact Strength, 23° C	ISO 179/1eA	kJ/m ²	30
Charpy Notched Impact Strength, -30 °C	ISO 179/1eA	kJ/m ²	11
Charpy Unnotched, -30 °C	ISO 179/1eU	kJ/m ²	160
Tensile Stress at Yield, 23 °C	ISO 527	MPa	40
Tensile Strain at Yield, 23 °C	ISO 527	%	2.7
Tensile Modulus	ISO 527	MPa	1900
Flexural Strength, 23 °C	ISO 178	MPa	58
Hardness, Rockwell	ISO 2039-2	R scale	101
Hardness, Ball Indentation	ISO 2039-1	MPa	80
Thermal Properties			
Vicat Softening Temperature VST/B/50 (50N, 50 °C/h)	ISO 306	°C	96

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Vicat Softening Temperature, VST/A/50 (10N, 50 °C/h)	ISO 306	°C	104
Heat Deflection Temperature A; (annealed 4 h/80 °C; 1.8 MPa)	ISO 75	°C	97
Heat Deflection Temperature B; (annealed 4 h/80 °C; 0.45 MPa)	ISO 75	°C	102
Coefficient of Linear Thermal Expansion	ISO 11359	10 ⁻⁶ /°C	80 - 110
Thermal Conductivity	DIN 52612-1	W/(m K)	0.17
Electrical Properties			
Dielectric Constant at 106 CPS (1000000 Hz, 0,0394 in)	-	-	2.8
Dielectric Constant (100 Hz)	IEC 62631-2-1	-	2.9
Dissipation Factor (100 Hz)	IEC 62631-2-1	10 ⁻⁴	54
Dissipation Factor (1 MHz)	IEC 62631-2-1	10 ⁻⁴	82
Volume Resistivity	IEC 62631-3-1	Ohm*m	10 ¹³
Comparative Tracking Index	IEC 60112	V	600
Other Properties			
Density	ISO 1183	kg/m ³	1020
Water Absorption, Saturated at 23 °C	ISO 62	%	1.03
Moisture Absorption, Equilibrium 23 °C/50% RH	ISO 62	%	0.21
Processing			
Linear Mold Shrinkage	ISO 294-4	%	0.4 - 0.7
Melt Temperature Range	ISO 294	°C	230 - 260
Mold Temperature Range	ISO 294	°C	40 - 60
Max Service Temperature	-	°C	80