

# Terluran HI-10

Acrylonitrile Butadiene Styrene (ABS)



Driving Success. Together.

## Technical Datasheet

### DESCRIPTION

Terluran HI-10 is a medium flow, injection molding grade with very high resistance to impact with excellent heat distortion and suitable for injection molding and extrusion.

### FEATURES

- High toughness
- Very high impact
- Medium flow
- Great mechanical strength and rigidity
- High impact at sub-zero temperatures

### APPLICATIONS

- Injection molding
- Compounding
- Appliance housings
- Lawn & garden components requiring superior toughness

Property, Test Condition	Standard	Unit	Values
<b>Rheological Properties</b>			
Melt Volume Rate 220 °C/10 kg	ISO 1133	cm <sup>3</sup> /10 min	5.5
<b>Mechanical Properties</b>			
Izod Notched Impact Strength, 23 °C	ISO 180/A	kJ/m <sup>2</sup>	36
Izod Notched Impact Strength, -30 °C	ISO 180/A	kJ/m <sup>2</sup>	14
Charpy Notched Impact Strength, 23° C	ISO 179	kJ/m <sup>2</sup>	35
Charpy Notched Impact Strength, -30° C	ISO 179	kJ/m <sup>2</sup>	13
Charpy Unnotched, 23° C	ISO 179	kJ/m <sup>2</sup>	N
Charpy Unnotched, -30° C	ISO 179	kJ/m <sup>2</sup>	140
Tensile Stress at Yield, 23° C	ISO 527	MPa	38
Tensile Strain at Yield, 23° C	ISO 527	%	2.8
Tensile Modulus	ISO 527	MPa	1900
Nominal Strain at Break, 23 °C	ISO 527	%	9
Flexural Strength	ISO 178	MPa	56
Hardness, Ball Indentation	ISO 2039-1	MPa	74
<b>Thermal Properties</b>			
Vicat Softening Temperature VST/B/50 (50°C/h, 50N)	ISO 306	°C	90
Vicat Softening Temperature, VST/A/50 (50°C/h, 10N)	ISO 306	°C	103

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Property, Test Condition	Standard	Unit	Values
Heat Deflection Temperature A; (annealed, 1.8 MPa)	ISO 75	°C	93
Heat Deflection Temperature B; (annealed, 0.45 MPa)	ISO 75	°C	97
Coefficient of Linear Thermal Expansion	ISO 11359	10 <sup>-6</sup> /°C	80 - 110
Thermal Conductivity	DIN 52612-1	W/(m K)	0.17
<b>Electrical Properties</b>			
Dissipation Factor (100 Hz)	IEC 60250	-	54E-4
Dissipation Factor (1 MHz)	IEC 60250	-	82E-4
Relative Permittivity (100 Hz)	IEC 60250	-	2.9
Relative Permittivity (1 MHz)	IEC 60250	-	2.8
Volume Resistivity	IEC 60093	Ohm*m	1E13
<b>Other Properties</b>			
Density	ISO 1183	kg/m <sup>3</sup>	1030
Water Absorption, Saturated at 23°C	ISO 62	%	1.03
Moisture Absorption, Equilibrium 23°C/50% RH	ISO 62	%	0.21
Yellowness Index	DIN 6167	-	15
<b>Processing</b>			
Linear Mold Shrinkage	ISO 294-4	%	0.4 - 0.7
Melt Temperature Range	ISO 294	°C	230 - 260
Mold Temperature Range	ISO 294	°C	30 - 60
Injection Velocity	ISO 294	mm/s	200
Drying Temperature		°C	80
Drying Time		h	2 - 4