

# Terlux HD 2802

Methyl Methacrylate Acrylonitrile Butadiene Styrene (MABS)

## TECHNICAL DATASHEET

### DESCRIPTION

Terlux® HD 2802 is a standard injection molding grade based on a MABS polymer. Terlux® HD 2802 offers an unique combination of properties, such as a balanced stiffness/toughness ratio and the high transparency well known in SAN molding compositions.

### FEATURES

- Excellent transparency
- Good resistance to chemicals
- Good stiffness and surface finish
- High impact strength
- HD service package available

### APPLICATIONS

- Medical devices

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	2
Melt Volume Rate, 220 °C/21.6 kg	ISO 1133	cm <sup>3</sup> /10 min	17
<b>Mechanical Properties</b>			
Charpy Notched Impact Strength, 23° C	ISO 179/1eA	kJ/m <sup>2</sup>	5
Charpy Notched Impact Strength, -30 °C	ISO 179/1eA	kJ/m <sup>2</sup>	2
Charpy Unnotched, 23 °C	ISO 179/1eU	kJ/m <sup>2</sup>	120
Charpy Unnotched, -30 °C	ISO 179/1eU	kJ/m <sup>2</sup>	80
Tensile Stress at Yield, 23 °C	ISO 527	MPa	48
Tensile Strain at Yield, 23 °C	ISO 527	%	4
Tensile Modulus	ISO 527	MPa	2000
Tensile Creep Modulus (1000h)	ISO 899	MPa	1250
Nominal Strain at Break, 23 °C	ISO 527	%	12
Flexural Strength, 23 °C	ISO 178	MPa	70
Hardness, Ball Indentation	ISO 2039-1	MPa	70
<b>Thermal Properties</b>			
Vicat Softening Temperature VST/B/50 (50N, 50 °C/h)	ISO 306	°C	93

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Vicat Softening Temperature, VST/A/50 (10N, 50 °C/h)	ISO 306	°C	105
Heat Deflection Temperature A; (annealed 4 h/80 °C; 1.8 MPa)	ISO 75	°C	90
Heat Deflection Temperature B; (annealed 4 h/80 °C; 0.45 MPa)	ISO 75	°C	94
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>			
Dielectric Constant (100 Hz)	IEC 62631-2-1	-	2.9
Dissipation Factor (100 Hz)	IEC 62631-2-1	10 <sup>-4</sup>	160
Dissipation Factor (1 MHz)	IEC 62631-2-1	10 <sup>-4</sup>	140
Volume Resistivity	IEC 62631-3-1	Ohm*m	10 <sup>13</sup>
Surface Resistivity	IEC 62631-3-1	Ohm	10 <sup>15</sup>
<b>Optical Properties</b>			
Refractive Index, Sodium D Line	ISO 489	-	1.54
<b>Other Properties</b>			
Density	ISO 1183	kg/m <sup>3</sup>	1080
Bulk Density (with external lubricant)	-	kg/m <sup>3</sup>	590
Water Absorption, Saturated at 23 °C	ISO 62	%	0.7
<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	50 - 75
Injection Velocity	ISO 294	mm/s	200
Drying Temperature	-	°C	70
Drying Time	-	h	2