

INEOS[®] HD 2812

Terlux[®] HD 2812 is an easy-flowing injection molding grade based on a MABS polymer. Terlux[®] HD 2812 offers an unique combination of properties, such as a balanced stiffness/toughness ratio and the high transparency well known in SAN molding compositions. Excellent transparency, Good resistance to chemicals, Good Stiffness and surface finish, High impact strength, HD service package available, Easy-flow grade.
Applications: medical devices

Physical Properties	Metric	English	Comments
Density	1.08 g/cc	0.0390 lb/in ³	ISO 1183
Water Absorption at Saturation	0.70 % @Temperature 23.0 °C	0.70 % @Temperature 73.4 °F	ISO 62
Linear Mold Shrinkage	0.0040 - 0.0070 cm/cm	0.0040 - 0.0070 in/in	ISO 294-4
Linear Mold Shrinkage, Flow	0.0055 cm/cm	0.0055 in/in	ISO 294-4
Melt Flow	8.0 g/10 min @Load 10.0 kg, Temperature 220 °C	8.0 g/10 min @Load 22.0 lb, Temperature 428 °F	Volumetric; cm ³ /10 min; ISO 1133
	45 g/10 min @Load 21.6 kg, Temperature 220 °C	45 g/10 min @Load 47.6 lb, Temperature 428 °F	Volumetric; cm ³ /10 min; ISO 1133

Mechanical Properties	Metric	English	Comments
Ball Indentation Hardness	75.0 MPa	10900 psi	ISO 2039-1
Tensile Strength, Yield	42.0 MPa	6090 psi	ISO 527
Elongation at Break	20 %	20 %	Nominal; ISO 527
Elongation at Yield	4.0 %	4.0 %	ISO 527
Tensile Modulus	1.90 GPa	276 ksi	ISO 527
Flexural Strength	60.0 MPa	8700 psi	ISO 178
Charpy Impact Unnotched	7.00 J/cm ² @Temperature -30.0 °C	33.3 ft-lb/in ² @Temperature -22.0 °F	ISO 179/1eU
	11.0 J/cm ² @Temperature 23.0 °C	52.3 ft-lb/in ² @Temperature 73.4 °F	ISO 179/1eU
Charpy Impact, Notched	0.200 J/cm ² @Temperature -30.0 °C	0.952 ft-lb/in ² @Temperature -22.0 °F	ISO 179/1eA
	0.500 J/cm ² @Temperature 23.0 °C	2.38 ft-lb/in ² @Temperature 73.4 °F	ISO 179/1eA

Electrical Properties	Metric	English	Comments
Volume Resistivity	1.00e+16 ohm-cm	1.00e+16 ohm-cm	IEC 60093
Surface Resistance	1.00e+15 ohm	1.00e+15 ohm	IEC 60093
Dielectric Constant	3.0 @Frequency 100 Hz	3.0 @Frequency 100 Hz	IEC 60250

Dissipation Factor	0.013 @Frequency 1e+6 Hz	0.013 @Frequency 1e+6 Hz	IEC 60250
	0.016 @Frequency 100 Hz	0.016 @Frequency 100 Hz	IEC 60250

Thermal Properties	Metric	English	Comments
CTE, linear	80.0 - 110 $\mu\text{m}/\text{m}\cdot^\circ\text{C}$	44.4 - 61.1 $\mu\text{in}/\text{in}\cdot^\circ\text{F}$	ISO 11359
Thermal Conductivity	0.170 W/m-K	1.18 BTU-in/hr-ft ² -°F	DIN 52612-1
Deflection Temperature at 0.46 MPa (66 psi)	93.0 °C	199 °F	annealed 4 hours at 80°C; ISO 75
Deflection Temperature at 1.8 MPa (264 psi)	87.0 °C	189 °F	annealed 4 hours at 80°C; ISO 75
Vicat Softening Point	87.0 °C @Load 5.10 kg	189 °F @Load 11.2 lb	VST/B/50. 50C/h; ISO 306

Optical Properties	Metric	English	Comments
Refractive Index	1.54	1.54	Sodium D Line; ISO 489

Processing Properties	Metric	English	Comments
Melt Temperature	230 - 260 °C	446 - 500 °F	ISO 294
Mold Temperature	50.0 - 75.0 °C	122 - 167 °F	ISO 294
Injection Velocity	200 mm/sec	7.87 in/sec	ISO 294
Drying Temperature	70.0 °C @Time 7200 sec	158 °F @Time 2.00 hour	