

# INEOS<sup>®</sup> 2812

Terlux<sup>®</sup> 2812 is an easy-flowing injection molding grade based on a MABS polymer. Terlux<sup>®</sup> 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, Easy-flow grade. Applications: Cosmetic packaging, Housewares, Housings, Toys, sport and leisure.

Physical Properties	Metric	English	Comments
Density	1.08 g/cc	0.0390 lb/in <sup>3</sup>	ISO 1183
Linear Mold Shrinkage	0.0040 - 0.0070 cm/cm	0.0040 - 0.0070 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 <sup>3</sup> /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 <sup>3</sup> /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
Izod Impact, Notched	0.590 J/cm @Thickness 3.17 mm	1.11 ft-lb/in @Thickness 0.125 in	ASTM Test
Charpy Impact Unnotched	7.00 J/cm <sup>2</sup> @Temperature -30.0 °C	33.3 ft-lb/in <sup>2</sup> @Temperature -22.0 °F	ISO 179/1eU
	11.0 J/cm <sup>2</sup> @Temperature 23.0 °C	52.3 ft-lb/in <sup>2</sup> @Temperature 73.4 °F	ISO 179/1eU
Charpy Impact, Notched	0.200 J/cm <sup>2</sup> @Temperature -30.0 °C	0.952 ft-lb/in <sup>2</sup> @Temperature -22.0 °F	ISO 179/1eA
	0.500 J/cm <sup>2</sup> @Temperature 23.0 °C	2.38 ft-lb/in <sup>2</sup> @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 $\mu\text{m}/\text{m}\cdot\text{C}^\circ$	44.4 - 61.1 $\mu\text{in}/\text{in}\cdot\text{F}^\circ$	ISO 11359
Thermal Conductivity	0.170 W/m-K	1.18 BTU-in/hr-ft <sup>2</sup> -F	DIN 52612-1
Deflection Temperature at 0.46 MPa (66 psi)	93.0 $^\circ\text{C}$	199 $^\circ\text{F}$	annealed 4 hours at 80 $^\circ\text{C}$ ; ISO 75
Deflection Temperature at 1.8 MPa (264 psi)	87.0 $^\circ\text{C}$	189 $^\circ\text{F}$	annealed 4 hours at 80 $^\circ\text{C}$ ; ISO 75
Vicat Softening Point	87.0 $^\circ\text{C}$ @Load 5.10 kg	189 $^\circ\text{F}$ @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 $^\circ\text{C}$	446 - 500 $^\circ\text{F}$	ISO 294
Mold Temperature	50.0 - 75.0 $^\circ\text{C}$	122 - 167 $^\circ\text{F}$	ISO 294
Injection Velocity	200 mm/sec	7.87 in/sec	ISO 294
Drying Temperature	70.0 $^\circ\text{C}$ @Time 7200 sec	158 $^\circ\text{F}$ @Time 2.00 hour	

Compliance Properties	Metric	English	Comments
NSF	No	No	NSF Std. 51
	No	No	NSF Std. 61