

INEOS Novodur® M201AS

Categories: Polymer; Thermoplastic; ABS Polymer; Acrylonitrile Butadiene Styrene (ABS), Molded

Material Notes: Novodur® M201AS is a medium impact, high gloss injection molding grade with improved chemical resistance. Improved chemical resistance, High gloss, Medium impact. Applications: Household appliances, Laundry dryers, Washing machines

Physical Properties	Metric	English	Comments
Density	1.04 g/cc	0.0376 lb/in ³	ISO 1183
Linear Mold Shrinkage	0.0040 - 0.0070 cm/cm	0.0040 - 0.0070 in/in	ISO 294-4
Melt Flow	18 g/10 min @Load 10.0 kg, Temperature 220 °C	18 g/10 min @Load 22.0 lb, Temperature 428 °F	Volumetric; cm ³ /10 min; ISO 1133

Mechanical Properties	Metric	English	Comments
Ball Indentation Hardness	105 MPa	15200 psi	ISO 2039-1
Tensile Strength, Yield	47.0 MPa	6820 psi	ISO 527
Elongation at Break	>= 15 %	>= 15 %	ISO 527
Elongation at Yield	2.5 %	2.5 %	ISO 527
Tensile Modulus	2.40 GPa	348 ksi	ISO 527
Flexural Strength	70.0 MPa	10200 psi	ISO 178
Flexural Modulus	2.30 GPa	334 ksi	ISO 178
Izod Impact, Notched (ISO)	10.0 kJ/m ² @Temperature -30.0 °C	4.76 ft-lb/in ² @Temperature -22.0 °F	ISO 180/A
	20.0 kJ/m ² @Temperature 23.0 °C	9.52 ft-lb/in ² @Temperature 73.4 °F	ISO 180/A
Charpy Impact Unnotched	8.00 J/cm ² @Temperature -30.0 °C	38.1 ft-lb/in ² @Temperature -22.0 °F	ISO 179/1eU
	14.0 J/cm ² @Temperature 23.0 °C	66.6 ft-lb/in ² @Temperature 73.4 °F	ISO 179/1eU
Charpy Impact, Notched	1.00 J/cm ² @Temperature -30.0 °C	4.76 ft-lb/in ² @Temperature -22.0 °F	ISO 179/1eA
	1.90 J/cm ² @Temperature 23.0 °C	9.04 ft-lb/in ² @Temperature 73.4 °F	ISO 179/1eA

Electrical Properties	Metric	English	Comments
Dielectric Constant	2.9 @Frequency 1e+6 Hz	2.9 @Frequency 1e+6 Hz	IEC 60250
	3.0 @Frequency 100 Hz	3.0 @Frequency 100 Hz	IEC 60250
Dissipation Factor	0.0060 @Frequency 100 Hz	0.0060 @Frequency 100 Hz	IEC 60250

	0.0090 @Frequency 1e+6 Hz	0.0090 @Frequency 1e+6 Hz	IEC 60250
Comparative Tracking Index	600 V	600 V	IEC 60112

Thermal Properties	Metric	English	Comments
CTE, linear	80.0 $\mu\text{m}/\text{m}\cdot^\circ\text{C}$	44.4 $\mu\text{in}/\text{in}\cdot^\circ\text{F}$	ISO 11359
Deflection Temperature at 0.46 MPa (66 psi)	100 $^\circ\text{C}$	212 $^\circ\text{F}$	annealed 4 hours at 80 $^\circ\text{C}$; ISO 75
Deflection Temperature at 1.8 MPa (264 psi)	96.0 $^\circ\text{C}$	205 $^\circ\text{F}$	annealed 4 hours at 80 $^\circ\text{C}$; ISO 75
Vicat Softening Point	98.0 $^\circ\text{C}$ @Load 5.10 kg	208 $^\circ\text{F}$ @Load 11.2 lb	VST/B/50. 50C/h; ISO 306

Processing Properties	Metric	English	Comments
Melt Temperature	230 - 260 $^\circ\text{C}$	446 - 500 $^\circ\text{F}$	ISO 294
Mold Temperature	60.0 - 80.0 $^\circ\text{C}$	140 - 176 $^\circ\text{F}$	ISO 294
Injection Velocity	240 mm/sec	9.45 in/sec	ISO 294
Drying Temperature	80.0 $^\circ\text{C}$ @Time 7200 - 14400 sec	176 $^\circ\text{F}$ @Time 2.00 - 4.00 hour	