

INEOS Novodur[®] H950

Categories: Polymer; Thermoplastic; ABS Polymer; Acrylonitrile Butadiene Styrene (ABS), Heat Resistant, Molded
 Material Notes: Novodur H950 is a very high heat injection molding grade with high gloss surface appearance
 Information provided by Styrolution

| Physical Properties | Metric | English | Comments |
|-----------------------|--|--|-----------|
| Density | 1.05 g/cc | 0.0379 lb/in ³ | ISO 1183 |
| Linear Mold Shrinkage | 0.0050 - 0.0070 cm/cm | 0.0050 - 0.0070 in/in | ISO 294-4 |
| Melt Flow | 4.0 g/10 min @Load 10.0 kg, Temperature 220 °C | 4.0 g/10 min @Load 22.0 lb, Temperature 428 °F | ISO 1133 |

| Mechanical Properties | Metric | English | Comments |
|----------------------------|--|---|------------|
| Ball Indentation Hardness | 110 MPa | 16000 psi | ISO 2039-1 |
| Tensile Strength, Yield | 50.0 MPa | 7250 psi | ISO 527 |
| Elongation at Yield | 2.7 % | 2.7 % | ISO 527 |
| Tensile Modulus | 2.60 GPa | 377 ksi | ISO 527 |
| Flexural Strength | 80.0 MPa | 11600 psi | ISO 178 |
| Flexural Modulus | 2.60 GPa | 377 ksi | ISO 178 |
| Izod Impact, Notched (ISO) | 8.00 kJ/m ² @Temperature -30.0 °C | 3.81 ft-lb/in ² @Temperature -22.0 °F | ISO 180/A |
| | 17.0 kJ/m ² @Temperature 23.0 °C | 8.09 ft-lb/in ² @Temperature 73.4 °F | ISO 180/A |
| Charpy Impact Unnotched | 9.00 J/cm ² @Temperature -30.0 °C | 42.8 ft-lb/in ² @Temperature -22.0 °F | ISO 179 |
| | 14.0 J/cm ² @Temperature 23.0 °C | 66.6 ft-lb/in ² @Temperature 73.4 °F | ISO 179 |
| Charpy Impact, Notched | 0.700 J/cm ² @Temperature -30.0 °C | 3.33 ft-lb/in ² @Temperature -22.0 °F | ISO 179 |
| | 1.60 J/cm ² @Temperature 23.0 °C | 7.61 ft-lb/in ² @Temperature 73.4 °F | ISO 179 |

| Electrical Properties | Metric | English | Comments |
|-----------------------|--------------------------|--------------------------|-----------|
| Volume Resistivity | >= 1.00e+15 ohm-cm | >= 1.00e+15 ohm-cm | IEC 60093 |
| Surface Resistance | >= 1.00e+15 ohm | >= 1.00e+15 ohm | IEC 60093 |
| Dielectric Constant | 3.2 @Frequency 100 Hz | 3.2 @Frequency 100 Hz | IEC 60250 |

| | | | |
|----------------------------|----------------------------------|-----------------------------------|----------------------------|
| Dielectric Strength | 37.0 kV/mm @Thickness 1.50 mm | 940 kV/in @Thickness 0.0591 in | Short Time; IEC 60243-1 |
| Dissipation Factor | 0.0060 @Frequency 100 Hz | 0.0060 @Frequency 100 Hz | IEC 60250 |
| | 0.010 @Frequency 1e+6 Hz | 0.010 @Frequency 1e+6 Hz | IEC 60250 |
| Comparative Tracking Index | 600 V | 600 V | IEC 60112 |

| Thermal Properties | Metric | English | Comments |
|---|--|--|--|
| CTE, linear | 70.0 $\mu\text{m}/\text{m}\cdot\text{C}$ | 38.9 $\mu\text{in}/\text{in}\cdot\text{F}$ | ISO 11359 |
| Deflection Temperature at 0.46 MPa (66 psi) | 108 $^{\circ}\text{C}$ | 226 $^{\circ}\text{F}$ | ISO 75 |
| Deflection Temperature at 1.8 MPa (264 psi) | 101 $^{\circ}\text{C}$ | 214 $^{\circ}\text{F}$ | ISO 75 |
| Vicat Softening Point | 113 $^{\circ}\text{C}$ @Load 5.10 kg | 235 $^{\circ}\text{F}$ @Load 11.2 lb | 50 $^{\circ}\text{C}/\text{h}$; ISO 306 |

| Processing Properties | Metric | English | Comments |
|-----------------------|---|--|----------|
| Melt Temperature | 240 - 270 $^{\circ}\text{C}$ | 464 - 518 $^{\circ}\text{F}$ | ISO 294 |
| Mold Temperature | 70.0 $^{\circ}\text{C}$ | 158 $^{\circ}\text{F}$ | 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 | |