

INEOS Styrolution[®] 4105

Novodur Ultra 4105 is a PC modified high heat injection molding grade with high impact strength.
Information provided by Styrolution

Physical Properties	Metric	English	Comments
Density	1.07 g/cc	0.0387 lb/in ³	ISO 1183
Linear Mold Shrinkage	0.0060 - 0.0080 cm/cm	0.0060 - 0.0080 in/in	ISO 294-4
Melt Flow	9.0 g/10 min @Load 10.0 kg, Temperature 220 °C	9.0 g/10 min @Load 22.0 lb, Temperature 428 °F	ISO 1133
	12 g/10 min @Load 5.00 kg, Temperature 260 °C	12 g/10 min @Load 11.0 lb, Temperature 500 °F	ISO 1133

Mechanical Properties	Metric	English	Comments
Ball Indentation Hardness	85.0 MPa	12300 psi	ISO 2039-1
Tensile Strength, Yield	45.0 MPa	6530 psi	ISO 527
Elongation at Yield	3.7 %	3.7 %	ISO 527
Tensile Modulus	2.00 GPa	290 ksi	ISO 527
Flexural Strength	70.0 MPa	10200 psi	ISO 178
Flexural Modulus	2.00 GPa	290 ksi	ISO 178
Izod Impact, Notched (ISO)	34.0 kJ/m ² @Temperature -30.0 °C	16.2 ft-lb/in ² @Temperature -22.0 °F	ISO 180/A
	42.0 kJ/m ² @Temperature 23.0 °C	20.0 ft-lb/in ² @Temperature 73.4 °F	ISO 180/A
Charpy Impact, Notched	3.00 J/cm ² @Temperature -30.0 °C	14.3 ft-lb/in ² @Temperature -22.0 °F	ISO 179
	4.00 J/cm ² @Temperature 23.0 °C	19.0 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	3.0	3.0	IEC 60250
	@Frequency 100 Hz	@Frequency 100 Hz	
Dielectric Strength	37.0 kV/mm	940 kV/in	Short Time; IEC 60243-1
	@Thickness 1.50 mm	@Thickness 0.0591 in	
Dissipation Factor	0.0040	0.0040	IEC 60250
	@Frequency 100 Hz	@Frequency 100 Hz	
Comparative Tracking Index	0.0085	0.0085	IEC 60250
	@Frequency 1e+6 Hz	@Frequency 1e+6 Hz	
	600 V	600 V	IEC 60112

Thermal Properties	Metric	English	Comments
CTE, linear	90.0 µm/m-°C	50.0 µin/in-°F	ISO 11359
Deflection Temperature at 0.46 MPa (66 psi)	108 °C	226 °F	ISO 75
Deflection Temperature at 1.8 MPa (264 psi)	99.0 °C	210 °F	ISO 75
Vicat Softening Point	106 °C	223 °F	50°C/h; ISO 306
	@Load 5.10 kg	@Load 11.2 lb	

Processing Properties	Metric	English	Comments
Melt Temperature	230 - 270 °C	446 - 518 °F	ISO 294
Mold Temperature	70.0 °C	158 °F	ISO 294



**SALES
PLASTICS .COM**

[Website: salesplastics.com](http://salesplastics.com)

[Email: jerry@salesplastics.com](mailto:jerry@salesplastics.com)

Phone: +86 18657312116

Injection Velocity	240 mm/sec	9.45 in/sec	ISO 294
Drying Temperature	80.0 °C @Time 7200 - 14400 sec	176 °F @Time 2.00 - 4.00 hour	