



Novodur® Ultra 4000PG

INEOS Styrolution - Acrylonitrile Butadiene Styrene

Sunday, November 3, 2019

General Information

Product Description

Novodur® Ultra 4000PG is an injection molding grade especially suitable for electroplating, providing enhanced heat resistance.

FEATURES

- Electroplating grade
- High heat resistance

APPLICATIONS

- Automotive exterior
- Radiator grills
- Rollover bar covers

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• High Heat Resistance		
Uses	• Automotive Applications	• Automotive Exterior Parts	
Automotive Specifications	• GM GMW15572P-ABS-T6 Color: 000000 Natural	• GM QK 002032 Color: 000000 Natural	• IMDS ID 34702414 Color: 000000 Natural
Forms	• Pellets		
Processing Method	• Injection Molding		

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density	1.05	g/cm ³	ISO 1183
Melt Volume-Flow Rate (MVR) (220°C/10.0 kg)	7.00	cm ³ /10min	ISO 1133
Molding Shrinkage	0.50 to 0.80	%	ISO 294-4
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	348000	psi	ISO 527-2
Tensile Stress (Yield, 73°F)	6670	psi	ISO 527-2
Tensile Strain (Yield, 73°F)	3.1	%	ISO 527-2
Tensile Strain (Break, 73°F)	> 15	%	ISO 527-2
Flexural Modulus (73°F)	341000	psi	ISO 178
Flexural Stress (73°F)	10600	psi	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-22°F	4.8	ft-lb/in ²	
73°F	11	ft-lb/in ²	
Notched Izod Impact Strength			ISO 180/A
-22°F	4.8	ft-lb/in ²	
73°F	11	ft-lb/in ²	
Hardness	Nominal Value	Unit	Test Method
Ball Indentation Hardness	14500	psi	ISO 2039-1

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Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature ² (66 psi, Annealed)	217	°F	ISO 75-2/B
Heat Deflection Temperature ² (264 psi, Annealed)	208	°F	ISO 75-2/A
Vicat Softening Temperature			
--	239	°F	ISO 306/A50
--	232	°F	ISO 306/A120
--	225	°F	ISO 306/B50
--	228	°F	ISO 306/B120
CLTE - Flow	5.0E-5	in/in/°F	ISO 11359-2
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	1.0E+16	ohms	IEC 60093
Volume Resistivity	1.0E+16	ohms·cm	IEC 60093
Electric Strength (0.0394 in)	970	V/mil	IEC 60243-1
Relative Permittivity			IEC 60250
100 Hz	3.00		
1 MHz	2.90		
Dissipation Factor			IEC 60250
100 Hz	6.5E-3		
1 MHz	8.5E-3		
Comparative Tracking Index	600	V	IEC 60112
Flammability	Nominal Value	Unit	Test Method
Flame Rating (0.06 in)	HB		IEC 60695-11-10

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	176	°F
Drying Time	2.0 to 4.0	hr
Processing (Melt) Temp	446 to 500	°F
Mold Temperature	140 to 176	°F
Injection Velocity	567	in/min

Notes

¹ Typical properties: these are not to be construed as specifications.

² 4h/80°C