



Novodur® HH-106

INEOS Styrolution - Acrylonitrile Butadiene Styrene

Sunday, November 3, 2019

General Information

Product Description

Novodur® HH-106 is a high heat injection molding grade providing a balanced property profile.

FEATURES

- High heat resistance
- Balanced property profile

APPLICATIONS

- Center consoles
- Radiator grills
- Mirror housings

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• High Heat Resistance		
Uses	• Automotive Applications		
Automotive Specifications	• BMW GS 93016 • CHRYSLER MS-DB-191 CPN1497 • CHRYSLER MS-DB-191 CPN3826 • CHRYSLER MS-DB-191 CPN4078 • CHRYSLER MS-DB-191 CPN4556 • DAIMLER DBL 5404	• FORD WSB-M4D690-A • FORD WSK-M4D792-A • FORD WSS-M4D690-B1 • FORD WSS-M4D827-B1 • GM GMP.ABS.003 • GM GMP.ABS.009	• GM GMW15572P-ABS-T2 • GM QK 002014 D Color: 10009 Black • HYUNDAI MS225-18 T2 • TOYOTA TSM 5512G • VOLKSWAGEN TL 527 Type A
Forms	• Pellets		
Processing Method	• Injection Molding		

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.05		ASTM D792
Density	1.05	g/cm ³	ISO 1183
Melt Mass-Flow Rate (220°C/10.0 kg)	7.0	g/10 min	ASTM D1238
Melt Volume-Flow Rate (MVR) (220°C/10.0 kg)	7.00	cm ³ /10min	ISO 1133
Molding Shrinkage - Flow	5.5E-3	in/in	ASTM D955
Molding Shrinkage	0.40 to 0.70	%	ISO 294-4
Water Absorption (Equilibrium, 73°F, 50% RH)	0.25	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	362000	psi	ASTM D638
Tensile Modulus	348000	psi	ISO 527-2
Tensile Strength (Yield, 73°F)	7540	psi	ASTM D638
Tensile Stress (Yield, 73°F)	7400	psi	ISO 527-2
Tensile Strain (Yield, 73°F)	3.0	%	ISO 527-2
Tensile Elongation (Break)	3.0	%	ASTM D638

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Mechanical	Nominal Value	Unit	Test Method
Nominal Tensile Strain at Break (73°F)	9.0	%	ISO 527-2
Flexural Modulus (73°F)	348000	psi	ASTM D790
Flexural Modulus (73°F)	348000	psi	ISO 178
Flexural Strength (73°F)	11200	psi	ASTM D790
Flexural Stress (73°F)	10400	psi	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-22°F	3.3	ft·lb/in ²	
73°F	7.6	ft·lb/in ²	
Charpy Unnotched Impact Strength			ISO 179/1eU
-22°F	48	ft·lb/in ²	
73°F	90	ft·lb/in ²	
Notched Izod Impact			ASTM D256
-22°F	1.4	ft·lb/in	
73°F	4.3	ft·lb/in	
Hardness	Nominal Value	Unit	Test Method
Ball Indentation Hardness	14800	psi	ISO 2039-1
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature ² (66 psi, Annealed)	225	°F	ISO 75-2/B
Heat Deflection Temperature ² (264 psi, Annealed)	210	°F	ISO 75-2/A
Vicat Softening Temperature			
--	239	°F	ISO 306/A50
--	223	°F	ISO 306/B50
--	226	°F	ISO 306/B120
CLTE - Flow	5.0E-5	in/in/°F	ISO 11359-2
Thermal Conductivity	1.2	Btu·in/hr/ft ² /°F	DIN 52612
Maximum Service Temperature	185	°F	
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity	> 1.0E+15	ohms·cm	ASTM D257
Volume Resistivity	1.0E+15	ohms·cm	IEC 60093
Electric Strength (0.0591 in)	990	V/mil	IEC 60243-1
Comparative Tracking Index	600	V	IEC 60112
Flammability	Nominal Value	Unit	Test Method
Flame Rating (0.06 in)	HB		UL 94

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	472	in/min

Notes

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

² 4h/80°C