Diamond ASA S130 9998 UV NPWHI

LyondellBasell Industries - Acrylonitrile Styrene Acrylate

General Information

Product Description

Diamond ASA S130 9998 UV NPWHI is a Acrylonitrile Styrene Acrylate material and is typically used in Injection Molding applications. Features include: Good Stiffness, Good Weather Resistance, and Medium Impact Resistance.

General

Features	• Good Stiffness	• Good Weather Resistance	• Medium Impact Resistance
Forms	• Pellets		
Processing Method	• Injection Molding		

Properties [1]

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.07		ASTM D792
Density (73°F)	1.07	g/cm³	ISO 1183
Melt Mass-Flow Rate (MFR) [2]			ASTM D1238
220°C/10.0 kg	28	g/10 min	
230°C/3.8 kg	8.4	g/10 min	
Melt Mass-Flow Rate (MFR)			ISO 1133
220°C/10.0 kg	28	g/10 min	
230°C/3.8 kg	8.4	g/10 min	
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Strength - Flow [3] (Yield, 73°F, Injection Molded)	7590	psi	ASTM D638
Tensile Stress - Flow (Yield, 73°F, Injection Molded)	7400	psi	ISO 527-2/50
Flexural Modulus - Chord, Flow (73°F, Injection Molded)	392000	psi	ASTM D790
Flexural Modulus - Chord, Flow (73°F, Injection Molded)	405000	psi	ISO 178
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Notched Impact Strength			ISO 179
-22°F, Injection Molded	2.0	ft·lb/in²	
73°F, Injection Molded	4.0	ft·lb/in²	
Notched Izod Impact - Flow			ASTM D256
-22°F, Injection Molded	1.4	ft·lb/in	
73°F, Injection Molded	2.1	ft·lb/in	
Notched Izod Impact Strength			ISO 180
-22°F, Injection Molded	2.0	ft·lb/in²	
73°F, Injection Molded	4.1	ft·lb/in²	
Hardness	**Nominal Value**	**Unit**	**Test Method**
Rockwell Hardness (R-Scale, 73°F, Injection Molded)	110		ASTM D785
Rockwell Hardness (R-Scale, 73°F)	111		ISO 2039-2
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load (66 psi, Unannealed)	194	°F	ASTM D648
Deflection Temperature Under Load (66 psi, Unannealed)	194	°F	ISO 75-2/B
Deflection Temperature Under Load			ASTM D648
264 psi, Unannealed, 0.125 in	172	°F	
Deflection Temperature Under Load			ISO 75-2/A
264 psi, Unannealed	170	°F	

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Thermal	Nominal Value	Unit	Test Method
Vicat Softening Temperature	214	°F	ASTM D1525
Vicat Softening Temperature	214	°F	ISO 306
CLTE - Flow (-22 to 176°F)	4.3E-5	in/in/°F	ISO 11359-2
CLTE - Transverse (-22 to 176°F)	4.8E-5	in/in/°F	ISO 11359-2

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	176 to 185	°F
Drying Time	2.0 to 4.0	hr
Suggested Max Moisture	0.10	%
Suggested Shot Size	40 to 70	%
Rear Temperature	446 to 500	°F
Middle Temperature	450 to 509	°F
Front Temperature	455 to 522	°F
Nozzle Temperature	428 to 522	°F
Processing (Melt) Temp	428 to 522	°F
Mold Temperature	104 to 176	°F
Injection Rate	Fast	
Back Pressure	75.0 to 149	psi

Notes

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

[2] Procedure A

[3] 2.0 in/min