HIVAL® HG6 Natural

Nexeo Solutions, LLC. - Acrylonitrile Butadiene Styrene

Monday, November 10, 2014

General Information

General			
Material Status	• Commercial: Active		
Availability	• North America		
Features	• BPA Free	• Good Flow	• High Impact Resistance
Uses	• Caps • Closures	• Household Goods • Sporting Goods	• Thin-walled Containers • Toys
Agency Ratings	• FDA 21 CFR 181.32		
RoHS Compliance	• RoHS Compliant		
Appearance	• Natural Color		
Forms	• Pellets		
Processing Method	• Injection Molding		

ASTM & ISO Properties [1]

Physical	Nominal Value	Unit	Test Method
Density	1.04	g/cm³	ASTM D1505
Melt Volume-Flow Rate (MVR) (230°C/3.8 kg)	0.293	in³/10min	ASTM D1238
Melt Volume-Flow Rate (MVR) (220°C/10.0 kg)	1.16	in³/10min	ISO 1133
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus	333000	psi	ASTM D638
Tensile Strength (Yield)	6520	psi	ASTM D638
Flexural Modulus	333000	psi	ASTM D790
Flexural Strength	9430	psi	ASTM D790
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact (73°F)	5.6	ft·lb/in	ASTM D256
Hardness	**Nominal Value**	**Unit**	**Test Method**
Rockwell Hardness (R-Scale)	103		ASTM D785
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load (66 psi, Unannealed)	195	°F	ASTM D648
Deflection Temperature Under Load			ASTM D648
264 psi, Unannealed	172	°F	
Vicat Softening Temperature	204	°F	ASTM D1525

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	170 to 175	°F
Drying Time	2.0 to 4.0	hr
Rear Temperature	390 to 450	°F
Middle Temperature	400 to 450	°F
Front Temperature	425 to 500	°F
Nozzle Temperature	425 to 500	°F
Processing (Melt) Temp	425 to 525	°F
Mold Temperature	80.0 to 120	°F

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Injection	Nominal Value	Unit
Injection Pressure	400 to 1500	psi
Back Pressure	150 to 500	psi

Injection Notes

Screw Speed: Slow
Injection Speed: Slow - Fast

Avoid excessive melt temperatures and long residence times as this could lead to thermal degradation.

Notes

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