

Axiall PVC HR-5009

Rigid Polyvinyl Chloride

Axiall Corporation

Message:

Georgia Gulf HR-5009 is a rigid, fitting-grade PVC compound designed for hot runner molds, large parts and multi-cavity molds. This compound is characterized by excellent processability, which includes color hold, regrind stability, and surface appearance. HR-5009 is NSF listed under standard 14/61 for both potable water and DWV applications.

Additional Properties:

Flow Ratio, Georgia Gulf Test Method, Distance/Wall Thickness, 390-400°F: 170

General Information			
UL YellowCard	E53006-243372		
Features	Good Color Stability		
	Good Processability		
	High Flow		
	Pleasing Surface Appearance		
Uses	Fittings		
	Thin-walled Parts		
Agency Ratings	ASTM D 1784 12454B		
	NSF 14		
	NSF 61		
	NSF Type I DWV pipe fittings		
UL File Number	E53006		
Appearance	Colors Available		
Forms	Pellets		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.39	g/cm ³	ASTM D792
Molding Shrinkage - Flow	0.20 to 0.30	%	ASTM D955
PVC Cell Classification	12454-B		ASTM D1784
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	115		ASTM D785
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	2830	MPa	ASTM D638
Tensile Strength	50.3	MPa	ASTM D638
Flexural Modulus	2900	MPa	ASTM D790
Flexural Strength	89.6	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method

Notched Izod Impact			ASTM D256
-20°C, 3.18 mm	37	J/m	
23°C, 3.18 mm	59	J/m	
Gardner Impact (23°C)	36.2	J	ASTM D3029
Drop Impact Resistance (23°C)	116	J/cm	ASTM D4226
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
0.45 MPa, Unannealed	75.0	°C	
1.8 MPa, Unannealed	70.0	°C	
Flammability	Nominal Value	Unit	Test Method
Flame Rating	V-0		UL 94
Oxygen Index	38	%	ASTM D2863
Injection	Nominal Value	Unit	
Drying Temperature	65.6	°C	
Drying Time	2.0 to 4.0	hr	
Drying Time, Maximum	6.0	hr	
Suggested Shot Size	35 to 75	%	
Suggested Max Regrind	50	%	
Rear Temperature	163	°C	
Middle Temperature	174 to 191	°C	
Front Temperature	182 to 193	°C	
Nozzle Temperature	177 to 193	°C	
Processing (Melt) Temp	202 to 210	°C	
Mold Temperature	15.6 to 48.9	°C	
Injection Pressure	82.7 to 138	MPa	
Holding Pressure	48.3 to 82.7	MPa	
Back Pressure	0.345 to 1.38	MPa	
Screw Speed	25 to 80	rpm	
Clamp Tonnage	3.4	kN/cm ²	
Screw L/D Ratio	16.0:1.0 to 24.0:1.0		
Screw Compression Ratio	1.5:1.0 to 2.5:1.0		

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