

TAIRIREX HP9450

High Impact Polystyrene

Formosa Chemicals & Fibre Corporation



Prospector

General			
Material Status	• Commercial: Active		
Availability	• Asia Pacific	• Europe	• North America
Features	• General Purpose	• High Flow	
Uses	• Disposable Tableware	• Media Packaging	• Sheet
RoHS Compliance	• RoHS Compliant		
Forms	• Pellets		
Processing Method	• Injection Molding		

Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.04	g/cm ³	ASTM D792 ISO 1183
Melt Mass-Flow Rate (MFR) (200°C/5.0 kg)	2.3	g/10 min	ASTM D1238 ISO 1133
Molding Shrinkage - Flow (23°C)	0.40 to 0.60	%	Internal Method

Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus (23°C)	1470	MPa	ASTM D638 ISO 527-2
Tensile Strength			
Yield, 23°C	23.5	MPa	ASTM D638
Yield, 23°C	24.0	MPa	ISO 527-2
Tensile Elongation (Break, 23°C)	43	%	ASTM D638 ISO 527-2
Flexural Modulus (23°C)	2160	MPa	ASTM D790 ISO 178
Flexural Strength			
23°C	43.1	MPa	ASTM D790
23°C	43.0	MPa	ISO 178

Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (23°C, 6.35 mm)	137	J/m	ISO 180 ASTM D256

Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
1.8 MPa, Unannealed, 3.18 mm	88.0	°C	ASTM D648
1.8 MPa, Unannealed, 3.18 mm Span	88.0	°C	ISO 75-2/A
Vicat Softening Temperature	95.0	°C	ISO 306/A ASTM D1525 ²

Flammability	Nominal Value	Unit	Test Method
Flame Rating - UL (1.59 mm)	HB		UL 94
UL File Number	E162823		

Additional Information	Nominal Value	Unit
Residual Monomer	< 700	ppm

Injection	Nominal Value	Unit
Drying Temperature	75.0	°C
Drying Time	1.0 to 2.0	hr
Hopper Temperature	40.0	°C
Rear Temperature	200	°C
Middle Temperature	210	°C
Front Temperature	220	°C
Nozzle Temperature	215	°C
Processing (Melt) Temp	190 to 230	°C
Mold Temperature	20.0 to 70.0	°C
Injection Rate	Moderate	

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Notes

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

² Loading 1 (10 N)

Revision History

Document Created: Thursday, February 04, 2010
Added to Prospector: May, 2007
Last Updated: 5/30/2008