TOTAL Polystyrene Impact 5331S

High Impact Polystyrene

TOTAL Refining & Chemicals

Message:

Polystyrene Impact 5331 is a high impact polystyrene for extrusion and injection molding applications.
It is recommended for manufacturing of articles which require good dimensional stability.
It allows good printing and retains good mechanical properties at low temperatures making it suitable for frozen packaging.
Applications:
Sheet Extrusion
Compounding

General Information	
Features	Good dimensional stability Impact resistance, high
Uses	Packaging Composite Sheet
Agency Ratings	EC 1907/2006 (REACH)
Forms	Particle
Processing Method	Extrusion Injection molding

Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.03	g/cm³	ASTM D792
Apparent Density	0.60	g/cm³	ASTM D1895
Melt Mass-Flow Rate (MFR) (200°C/5.0 kg)	5.0	g/10 min	ASTM D1238, ISO 1133
Spiral Flow [1]	45.0	cm	ASTM D3123
Molding Shrinkage - Flow	0.40 - 0.70	%	ASTM D955
Water Absorption			
Balance	0.060	%	ASTM D570
Equilibrium, 23°C, 50% RH	0.060	%	ISO 62
Hardness	**Nominal Value**	**Unit**	**Test Method**
Rockwell Hardness			
Grade R, 23°C, Injection Molding	78		ASTM D785
R scale, 23°C	78		ISO 2039-2
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Strength (Yield, 23°C, Injection Molded)	24.0	MPa	ASTM D638, ISO 527-2
Tensile Elongation (Break, 23°C, Injection Molded)	40	%	ASTM D638, ISO 527-2

Flexural Modulus (23°C, Injection Molded)	2000	MPa	ASTM D790, ISO 178
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact			
23°C, injection molding	99	J/m	ASTM D256
23°C, injection molding	11	kJ/m^2	ISO 180
Thermal	**Nominal Value**	**Unit**	**Test Method**
Vicat Softening Temperature	95.0	°C	ISO 306/A50, ASTM D1525 [2]
CLTE - Flow	9.1E-5	cm/cm/°C	ASTM D696
Heat Distortion			
--	80	°C	ISO 75-2
--	80	°C	ASTM D648
Electrical	**Nominal Value**	**Unit**	**Test Method**
Surface Resistivity	> 1.0E+14	ohms	IEC 60093
Dielectric Strength	150	kV/mm	ASTM D149
Injection	**Nominal Value**	**Unit**	
Rear Temperature	150 - 180	°C	
Middle Temperature	160 - 200	°C	
Front Temperature	180 - 220	°C	
Nozzle Temperature	210 - 240	°C	
Injection instructions			
Zone 4 Temperature: 200 to 230°C			
NOTE			
1.	Melt temperature: 220°C		
2.	速率 A (50°C/h), 压 力1 (10N)		

Recommended distributors for this material

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