Synthos PS GP 174

General Purpose Polystyrene

Synthos S.A.

Message:

SYNTHOS PS GP 174 is general purpose polystyrene (GPPS) of excellent heat resistance and good rheological properties. It is a thermoplastic material designed for extrusion, thermoforming and injection moulding. Product has a form of cylindrical granules of diameter 2.5 to 6 mms. SYNTHOS PS GP 174 contains no internal lubricants.

APPLICATION

General Information

Injection moulding is used to produce parts with increased thermal resistance.

Production of XPS sheets and plates by means of direct extrusion and blowing.

It is suitable for blending with high-impact polystyrene (HIPS) and SBS copolymers to increase the thermal resistance of the product e.g. cups for hot drinks.

Features	General Purpose		
	High Heat Resistance		
Uses	Blending		
	Cups		
	General Purpose		
	Sheet		
Appearance	Colorless		
Forms	Granules		
Processing Method	Extrusion		
	Injection Molding		
	Thermoforming		
Physical	Nominal Value	Unit	Test Method
Melt Mass-Flow Rate (MFR) (200°C/5.0 kg)	7.0 to 8.0	g/10 min	ISO 1133
Molding Shrinkage	0.20 to 0.50	%	Internal Method
Particle Size	2.50 to 6.00	mm	
Residual Styrene			
residual styrene	0.035	%	Internal Method
·	0.035 Nominal Value	% Unit	Internal Method Test Method
Impact			
Impact Charpy Unnotched Impact Strength (23°C)	Nominal Value	Unit	Test Method
Impact Charpy Unnotched Impact Strength (23°C) Thermal	Nominal Value	Unit kJ/m²	Test Method ISO 179/1eU
Impact Charpy Unnotched Impact Strength (23°C) Thermal Vicat Softening Temperature	Nominal Value 14 Nominal Value	Unit kJ/m² Unit	Test Method ISO 179/1eU Test Method
Impact Charpy Unnotched Impact Strength (23°C) Thermal Vicat Softening Temperature Flammability Flame Rating (1.60 mm)	Nominal Value 14 Nominal Value 101	Unit kJ/m² Unit	Test Method ISO 179/1eU Test Method ISO 306/B50
Impact Charpy Unnotched Impact Strength (23°C) Thermal Vicat Softening Temperature Flammability Flame Rating (1.60 mm)	Nominal Value 14 Nominal Value 101 Nominal Value	Unit kJ/m² Unit	Test Method ISO 179/1eU Test Method ISO 306/B50 Test Method
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Hot Air Dryer	70.0	°C	
Drying Time			
Desiccant Dryer	1.0	hr	
Hot Air Dryer	2.0 to 4.0	hr	
Processing (Melt) Temp	180 to 260	°C	
Mold Temperature	10.0 to 60.0	°C	
Extrusion	Nominal Value	Unit	
Melt Temperature	200 to 240	°C	

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