# Synthos PS GP 535

## General Purpose Polystyrene

### Synthos S.A.

#### Message:

SYNTHOS PS GP 535 is general purpose polystyrene (GPPS) with excellent optical properties, gloss and increased heat resistance. It is a thermoplastic material designed for injection moulding, extrusion, thermoforming and blow extrusion. Product has a form of cylindrical granules of diameter 2.5 to 6 mm.

#### APPLICATION

Injection moulding is used to produce e.g. packaging for cosmetics, CD and DVD cases, vegetable boxes for refrigerators, shower enclosure panels. Extrusion is used to produce sheets and plates that can be thermoformed to packaging for the food industry. Blow extrusion may be produce biaxially-oriented sheets (BOPS). For these types of processing are properties of SYNTHOS PS GP 535 usually modified by blending with the high-impact polystyrene (HIPS) and SBS copolymers. It is also used as a co-extrusion material in the extrusion of plates and sheets with a glossy surface. The composition of the polymer meets the requirements of the Health and can therefore be used for the production of articles coming into contact with food.

General Information			
Features	Food Contact Acceptable		
	General Purpose		
	High Gloss		
	Medium Heat Resistance		
	Opticals		
Uses	Bi-axially Oriented Film		
	Blending		
	Cosmetic Packaging		
	Food Packaging		
	General Purpose		
	Packaging		
	Sheet		
Appearance	Colorless		
Forms	Granules		
Processing Method	Coextrusion		
	Extrusion		
	Extrusion Blow Molding		
	Injection Molding		
	Thermoforming		
Physical	Nominal Value	Unit	Test Method
Melt Mass-Flow Rate (MFR) (200°C/5.0 kg)	3.7 to 4.3	g/10 min	ISO 1133
Molding Shrinkage	0.20 to 0.50	%	Internal Method
Particle Size	2.50 to 6.00	mm	
Residual Styrene	0.020	%	Internal Method

Impact	Nominal Value	Unit	Test Method
Charpy Unnotched Impact Strength (23°C)	11	kJ/m²	ISO 179/1eU
Thermal	Nominal Value	Unit	Test Method
Vicat Softening Temperature	97.0	°C	ISO 306/B50
Flammability	Nominal Value		Test Method
Flame Rating (1.60 mm)	НВ		UL 94
Injection	Nominal Value	Unit	
Drying Temperature			
Desiccant Dryer	80.0	°C	
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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### Recommended distributors for this material

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