# API PS 505-21

### General Purpose Polystyrene

American Polymers, Inc.

#### Message:

API PS 505-21 is a General Purpose Polystyrene material. It is available in North America for injection molding.

Important attributes of API PS 505-21 are:

Fast Molding Cycle

Impact Modified

Typical applications include:

Caps/Lids/Closures

Consumer Goods

Electrical/Electronic Applications

Packaging

General Information				
Additive	Impact Modifier			
Features	Fast Molding Cycle			
	Good Flow			
	Impact Modified			
	Medium Gloss			
Uses	Audio Tapes			
	Caps			
	Cosmetics			
	Food Packaging			
Forms	Pellets			
Processing Method	Injection Molding			
Physical	Nominal Value	Unit	Test Method	
Specific Gravity	1.04	g/cm³	ASTM D792	
Melt Mass-Flow Rate (MFR) (200°C/5.0 kg)	13	g/10 min	ASTM D1238	
Hardness	Nominal Value	Unit	Test Method	
Rockwell Hardness (L-Scale)	35		ASTM D785	
Mechanical	Nominal Value	Unit	Test Method	
Tensile Modulus	2140	MPa	ASTM D638	
Tensile Strength (Break)	24.8	MPa	ASTM D638	
Tensile Elongation (Break)	42	%	ASTM D638	
Flexural Modulus	2690	MPa	ASTM D790	
Impact	Nominal Value	Unit	Test Method	
Notched Izod Impact (3.18 mm)	69	J/m	ASTM D256	
Thermal	Nominal Value	Unit	Test Method	
Deflection Temperature Under Load (1.8 MPa, Unannealed)	82.2	°C	ASTM D648	

Vicat Softening Temperature	88.9	°C	ASTM D1525
Injection	Nominal Value	Unit	
Drying Temperature	71.1 to 82.2	°C	
Drying Time	2.0	hr	
Suggested Max Regrind	30	%	
Rear Temperature	177 to 232	°C	
Front Temperature	191 to 274	°C	
Mold Temperature	-6.67 to 71.1	°C	
Injection Pressure	34.5 to 276	MPa	
Back Pressure	0.0689 to 3.45	MPa	

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#### Recommended distributors for this material

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