

# API PS 550

High Impact Polystyrene  
American Polymers, Inc.

Message:

API 550 is a high impact grade of polystyrene. It is characterized by good impact and processability.  
Application: API 550 is widely used in the manufacture of housewares, toys, containers, appliance parts, speaker housings, and various types of extrusions.

General Information			
Features	Good Impact Resistance		
	Good Processability		
Uses	Appliance Components		
	Containers		
	Electrical Housing		
	Household Goods		
	Toys		
Forms	Pellets		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.04	g/cm <sup>3</sup>	ASTM D792
Melt Mass-Flow Rate (MFR) (200°C/5.0 kg)	8.0	g/10 min	ASTM D1238
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (L-Scale)	47		ASTM D785
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	1590	MPa	ASTM D638
Tensile Strength (Break)	26.9	MPa	ASTM D638
Tensile Elongation (Break)	45	%	ASTM D638
Flexural Modulus	1930	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (3.18 mm, Injection Molded)	110	J/m	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (1.8 MPa, Annealed)	81.1	°C	ASTM D648
Vicat Softening Temperature	85.0	°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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