# API PS 505 HF

### Medium Impact Polystyrene

#### American Polymers, Inc.

#### Message:

API 505-HF is a high flow, intermediate grade of impact modified polystyrene. This material possess exceptional moldability and easy colorablility. API 505 HF offers good retention of mechanical properties in applications with long flow length requirements.

Application: API 505-HF is widely used in housewares, housings of all types, toys, displays, and as base resin for color concentrate production.

General Information			
Features	Good Colorability		
	Good Moldability		
	High Flow		
	Medium Impact Resistance		
Uses	Color Concentrates		
	Decorative Displays		
	Household Goods		
	Housings		
	Toys		
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)	14	g/10 min	ASTM D1238
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (L-Scale)	59		ASTM D785
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	2000	MPa	ASTM D638
Tensile Strength (Break)	26.2	MPa	ASTM D638
Tensile Elongation (Break)	45	%	ASTM D638
Flexural Modulus	2100	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (3.18 mm, Injection	<u></u>		
Molded)	69	J/m	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (1.8 MPa, Annealed)	82.2	°C	ASTM D648
Vicat Softening Temperature	87.8	°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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