

API PS 645-21

High Impact Polystyrene
American Polymers, Inc.

Message:

API 645-21 is a super high impact polystyrene used in applications requiring a superior level of toughness along with good tensile a flexural properties. On balance this extrusion grade polymer approaches some ABS properties.
Application: Widely used in sheet stock, housings, profiles, and tubing where a high degree of impact is needed.

General Information	
Features	Good Toughness
	High Impact Resistance
	High Tensile Strength
Uses	Housings
	Profiles
	Sheet
	Tubing
Forms	Pellets
Processing Method	Extrusion
	Injection Molding

Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.03	g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) (200°C/5.0 kg)	3.0	g/10 min	ASTM D1238
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (L-Scale)	45		ASTM D785
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	1860	MPa	ASTM D638
Tensile Strength (Break)	20.7	MPa	ASTM D638
Tensile Elongation (Break)	45	%	ASTM D638
Flexural Modulus	2070	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (3.18 mm, Injection Molded)	160	J/m	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (1.8 MPa, Annealed)	77.8	°C	ASTM D648
Vicat Softening Temperature	95.6	°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

The information and data on this page are provided by manufacturers and document providers. SHANGHAI SUSHENG assumes no legal liability. It is strongly recommended to verify all technical data with material suppliers before final material selection. All rights belong to the original authors. If any infringement occurs, please contact us immediately.

Recommended distributors for this material

Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China

