

## BASF Polystyrol® 455 F WU Impact Grade Polystyrene (Europe)

Category : Polymer , Thermoplastic , Polystyrene (PS) , Polystyrene, Flame Retardant

### Material Notes:

Very easy-flowing, impact-modified grade. Data was collected by ISO methods and provided by BASF.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_BASF-Polystyrol-455-F-WU-Impact-Grade-Polystyrene-Europe.php](http://www.lookpolymers.com/polymer_BASF-Polystyrol-455-F-WU-Impact-Grade-Polystyrene-Europe.php)

Physical Properties	Metric	English	Comments
Density	1.15 g/cc	0.0415 lb/in <sup>3</sup>	
Water Absorption	0.15 %	0.15 %	
Moisture Absorption at Equilibrium	0.10 %	0.10 %	
Linear Mold Shrinkage, Flow	0.0055 cm/cm	0.0055 in/in	
Melt Flow	14 g/10 min	14 g/10 min	
	@Load 5.00 kg, Temperature 200 °C	@Load 11.0 lb, Temperature 392 °F	

Mechanical Properties	Metric	English	Comments
Tensile Strength, Yield	27.0 MPa	3920 psi	
Elongation at Break	20 %	20 %	
Elongation at Yield	2.1 %	2.1 %	
Tensile Modulus	1.80 GPa	261 ksi	
Charpy Impact Unnotched	10.0 J/cm <sup>2</sup>	47.6 ft-lb/in <sup>2</sup>	
	7.00 J/cm <sup>2</sup>	33.3 ft-lb/in <sup>2</sup>	
	@Temperature -30.0 °C	@Temperature -22.0 °F	
Charpy Impact, Notched	0.800 J/cm <sup>2</sup>	3.81 ft-lb/in <sup>2</sup>	
Tensile Creep Modulus, 1 hour	1600 MPa	232000 psi	
Tensile Creep Modulus, 1000 hours	1200 MPa	174000 psi	

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	100 µm/m-°C	55.6 µin/in-°F	
	@Temperature 20.0 °C	@Temperature 68.0 °F	
Deflection Temperature at 0.46 MPa (66 psi)	78.0 °C	172 °F	

Thermal Properties	Metric	English	Comments
Modulus at 1.8 MPa (264 psi)	88.11 GPa	126.71 GPa	
Vicat Softening Point	80.0 °C	176 °F	
Flammability, UL94	V-0	V-0	
	@Thickness 3.20 mm	@Thickness 0.126 in	
Oxygen Index	26 %	26 %	

Electrical Properties	Metric	English	Comments
Electrical Resistivity	>= 1.00e+15 ohm-cm	>= 1.00e+15 ohm-cm	
Surface Resistance	1.00e+13 ohm	1.00e+13 ohm	
Dielectric Constant	2.6	2.6	
	@Frequency 100 Hz	@Frequency 100 Hz	
	2.6	2.6	
	@Frequency 1e+6 Hz	@Frequency 1e+6 Hz	
Dissipation Factor	0.0015	0.0015	
	@Frequency 100 Hz	@Frequency 100 Hz	
	0.0040	0.0040	
	@Frequency 1e+6 Hz	@Frequency 1e+6 Hz	
Comparative Tracking Index	375 V	375 V	

## Contact Songhan Plastic Technology Co.,Ltd.

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