

## Ineos Styrenics Avantra® 597N Polystyrene (NAFTA)

Category : Polymer , Thermoplastic , Polystyrene (PS) , Polystyrene, Impact Modified

### Material Notes:

High-impact grade of polystyrene with improved impact strength and heat resistance, developed for injection molding and extrusion/thermoforming applications. Information provided by BASF. Ineos Styrenics purchased this product line from BASF in 2005.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_ineos-Styrenics-Avantra-597N-Polystyrene-NAFTA.php](http://www.lookpolymers.com/polymer_ineos-Styrenics-Avantra-597N-Polystyrene-NAFTA.php)

Physical Properties	Metric	English	Comments
Density	1.04 g/cc	0.0376 lb/in <sup>3</sup>	
Moisture Absorption at Equilibrium	<= 0.10 %	<= 0.10 %	
Water Absorption at Saturation	<= 0.10 %	<= 0.10 %	
Linear Mold Shrinkage	0.0040 - 0.0070 cm/cm	0.0040 - 0.0070 in/in	ASTM D955
Melt Flow	2.5 g/10 min @Load 5.00 kg, Temperature 200 Â°C	2.5 g/10 min @Load 11.0 lb, Temperature 392 Â°F	

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell L	55	55	ASTM D785
Tensile Strength, Ultimate	27.0 MPa	3920 psi	
Tensile Strength, Yield	25.0 MPa	3630 psi	
Elongation at Break	65 %	65 %	
Tensile Modulus	1.793 GPa	260.1 ksi	
Flexural Modulus	1.79 GPa	260 ksi	
Izod Impact, Notched	1.71 J/cm	3.20 ft-lb/in	ASTM D256A
Gardner Impact	33.0 J @Thickness 3.17 mm	24.3 ft-lb @Thickness 0.125 in	

Thermal Properties	Metric	English	Comments
Deflection Temperature at 1.8 MPa (264 psi)	88.0 Â°C	190 Â°F	
Vicat Softening Point	106 Â°C	223 Â°F	
Flammability, UL94	HB	HB	UL94 and CSA 0.6 1.5mm

Optical Properties	Metric	English	Comments
Gloss	65 %	65 %	60°

Electrical Properties	Metric	English	Comments
Volume Resistivity	1.21e+13 ohm-cm	1.21e+13 ohm-cm	ASTM D257
Dielectric Strength	42.91 kV/mm	1090 kV/in	

Processing Properties	Metric	English	Comments
Melt Temperature	200 - 230 °C	392 - 446 °F	Extrusion
	180 - 280 °C	356 - 536 °F	Molding

## Contact Songhan Plastic Technology Co.,Ltd.

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