

Ineos Styrenics Avantra® 585K Rubber Modified Polystyrene

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

Material Notes:

Avantra® 585K is a high-impact grade of polystyrene with extremely high surface gloss and excellent practical impact strength. Although Avantra® 585K can be processed by any method applicable to polystyrene-based plastics, it is primarily used for injection molding and extrusion/thermoforming. When impact resistance and high gloss are the primary requirements, Avantra® 585K has the appearance and toughness that make it a suitable replacement for medium impact ABS. These characteristics are displayed over a relatively wide processing window. Typical applications include toys, cosmetic packaging, small appliance housings, refrigerator accessory parts and point of purchase displays. Information provided by Ineos Styrenics. 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-585K-Rubber-Modified-Polystyrene.php

Physical Properties	Metric	English	Comments
Density	1.04 g/cc	0.0376 lb/in ³	ASTM D792
Water Absorption at Saturation	<= 0.10 %	<= 0.10 %	ASTM D570
Linear Mold Shrinkage	0.0040 - 0.0070 cm/cm	0.0040 - 0.0070 in/in	ASTM D955
Melt Flow	3.6 g/10 min @Load 5.00 kg, Temperature 200 °C	3.6 g/10 min @Load 11.0 lb, Temperature 392 °F	ASTM D1238

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell L	55	55	ASTM D785
Tensile Strength, Ultimate	24.0 MPa	3480 psi	ASTM D638
Tensile Strength, Yield	26.0 MPa	3770 psi	ASTM D638
Elongation at Break	40 %	40 %	ASTM D638
Tensile Modulus	2.14 GPa	310 ksi	ASTM D638
Flexural Modulus	1.93 GPa	280 ksi	ASTM D790-1
Izod Impact, Notched	1.28 J/cm	2.40 ft-lb/in	ASTM D256-A
Gardner Impact	28.2 J	20.8 ft-lb	ASTM D5420

Thermal Properties	Metric	English	Comments
Deflection Temperature at 1.8 MPa (264 psi)	85.0 °C	185 °F	ASTM D648
Vicat Softening Point	101 °C	214 °F	ASTM D1525

Thermal Properties	Metric	English	Comments
Flammability, UL94	@Thickness 1.50 mm	@Thickness 0.0591 in	Self, All Color

Optical Properties	Metric	English	Comments
Gloss	90 %	90 %	60°; ASTM D523

Electrical Properties	Metric	English	Comments
Volume Resistivity	$\geq 1.00 \times 10^{16}$ ohm-cm	$\geq 1.00 \times 10^{16}$ ohm-cm	ASTM D257
Surface Resistance	$\geq 1.00 \times 10^{13}$ ohm	$\geq 1.00 \times 10^{13}$ ohm	ASTM D257
Dielectric Constant	2.5 @Frequency 100 - 1.00e+6 Hz	2.5 @Frequency 100 - 1.00e+6 Hz	ASTM D150
Dielectric Strength	155 kV/mm	3940 kV/in	ASTM D149

Processing Properties	Metric	English	Comments
Melt Temperature	210 - 240 °C	410 - 464 °F	Extrusion
	180 - 280 °C	356 - 536 °F	Molding

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