

Data Sheet

Avantra® 8330

Avantra® Ignition Resistant Polystyrene

Avantra® 8330 is a ignition resistant grade of high impact polystyrene offering unmatched heat resistance, high stiffness and thermal stability. It is free of polybrominated diphenylethers and meets UL94V-2 (0.057"-0.110"/1.45 mm - 2.8mm) rating.

Applications

Avantra® 8330 is intended primarily for copier parts, business machine enclosures, and appliance components.

Typical Properties for Uncolored Products*

Properties	Test method		SI		English	
	ASTM	Unit	Value	Unit	Value	
Mechanical properties						
Tensile Stress at Yield	ASTM D638	MPa	41	psi	6000	
Tensile Stress at Break	ASTM D 638	MPa	35	psi	5100	
Tensile Elongation	ASTM D 638	%	13	%	13	
Flexural Modulus	ASTM D 790-1	MPa	2758	psi	400000	
Izod Notched Impact Strength, 23°C	ASTM D 256-A	J/m	69	ft-lbs/in	1.3	
Rockwell Hardness, (L, M or R) - Scale	ASTM D 785	L	65	L	65	
Thermal properties						
Vicat Softening Temperature	ASTM D 1525	°C	104	°F	219	
Temp.of Deflection Under Load at 264 psi	ASTM D 648	°C	97	°F	207	
Processing						
Nominal Melt Flow Rate (200 °C, 5000g)	ASTM D 1238	g/10 min	2.5	g/10 min	2.5	
Melt Temperature Range (Molding)	-	°C	200-240	°F	400-460	
Flammability						
UL 94 (Solid) Nat. Black 1.6-2.8mm	94	class	V2	class	V2	
Miscellaneous properties						
Density	ASTM D 792	g/cm ³	1.08	g/cm ³	1.08	
Water Absorption (Saturation in water at 23°C)		%	<0.15	%	<0.15	
Moisture Absorpt. (23°C/50% r.h.)		%	<0.1	%	<0.1	
Mold Shrinkage	ASTM D 955	%	0.3-0.6	%	0.3-0.6	

Processing

Avantra® 8330 can be processed by any method applicable to polystyrene-based plastics, especially sheet extrusion and injection molding. The melt temperature should not exceed 250 °C.

Handling and Safety

Avantra® 8330 is not known to have any ill effect on workers in an adequately ventilated molding shop when it is processed by usual methods used for polystyrene-based plastics.

During processing of Avantra® 8330 small quantities of styrene monomer may be released into the atmosphere. At styrene vapor concentrations below 20 ppm no negative effects on health are expected. In our experience, the concentration of styrene does not exceed 1 ppm in well ventilated workplaces - that is where five to eight air changes per hour are made.

Packaging and Samples

Avantra® 8330 is supplied in pellet form. It has to be stored original containers in a cool, dry place. Avoid direct exposure to sunlight. Avantra® 8330 can also be stored in silos. Samples are available on request.

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