

Avantra® 8731

Avantra® Ignition Resistant Polystyrene

Avantra® 8731 is a ignition resistant grade of high impact polystyrene with. It is free of polybrominated diphenylethers and meets UL94V-0 (@ 0.062"/1.5 mm min.) rating. It exhibits excellent mechanical and heat resistance properties.

Applications

Avantra® 8731 is recommended for sheet extrusion and injection molding

Typical Properties for Uncolored Products

	Test method ASTM	SI Unit	Value	Unit	English Value
MECHANICAL PROPERTIES					
Tensile Stress at Yield	D638	MPa	30	psi	4150
Tensile Stress at Break	D 638	MPa	22	psi	3000
Tensile Elongation	D 638	%	50	%	50
Flexural Modulus	D 790-1	MPa	2188	psi	305000
Izod Notched Impact Strength 23°C	D 256-A	J/m	177	ft-lbs/in	3.3
THERMAL PROPERTIES					
Vicat Softening Temperature	D 1525	°C		°F	T
Temp.of Deflection Under Load at 264 psi	D 648	°C		°F	
PROCESSING					
Nominal Melt Flow Rate (200 °C, 5000g)	D 1238	g/10 min	4	g/10 min	4
Melt Temperature Range (Molding)	-	°C	200-240	°F	400-460
FLAMMABILITY					
UL (Solid) NC / BK 1.5mm	94	Class	V-0		
MISCELLANEOUS PROPERTIES					
Density	D 792	g/cm ³	1.15	g/cm ³	1.16
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	D 955	%	0.3-0.6	%	0.3-0.6

Processing

Although Avantra® 8731 can be processed by any method applicable to polystyrene-based plastics. It is ideally suited for sheet extrusion and injection molding. The melt temperature should not exceed 250 °C.

Handling and Safety

Avantra® 8731 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® 8731 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® 8731 is supplied in pellet form. It has to be stored original containers in a cool, dry place. Avoid direct exposure to sunlight. Avantra® 8731 can also be stored in silos. Samples are available on request.

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