DISTRUPOL®

*Part of the **Univar** Network*

Styrolution PS 495N

Styrolution - High Impact Polystyrene

Wednesday, August 20, 2014

General Information

Product Description

Styrolution PS 495N is an impact resistant polystyrene with a good balance of toughness, high flow, heat resistance and high gloss.

General

Material Status	• Commercial: Active		
Features	• Food Contact Acceptable • Good Toughness	• High Flow • High Gloss	• High Impact Resistance • Medium Heat Resistance
Uses	• Business Equipment	• Tanks	
Agency Ratings	• EU 10/2011		
Forms	• Granules		
Processing Method	• Injection Molding		

ASTM and ISO Properties [1]

Physical	Nominal Value	Unit	Test Method
Density	1.04	g/cm³	ISO 1183
Melt Volume-Flow Rate (MVR) (200°C/5.0 kg)	9.50	cm³/10min	ISO 1133
Molding Shrinkage	0.40 to 0.70	%	ISO 294-4
Water Absorption (Saturation, 23°C)	< 0.10	%	ISO 62
Water Absorption (Equilibrium, 23°C, 50% RH)	< 0.10	%	ISO 62
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus	2000	MPa	ISO 527-2
Tensile Stress (Yield, 23°C)	26.0	MPa	ISO 527-2
Tensile Strain (Yield, 23°C)	1.5	%	ISO 527-2
Flexural Modulus	2100	MPa	ISO 178
Flexural Strength	40.0	MPa	ISO 178
Films	**Nominal Value**	**Unit**	
Tensile Elongation - MD (Break)	40	%	
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Notched Impact Strength (23°C)	17	kJ/m²	ISO 179
Hardness	**Nominal Value**	**Unit**	**Test Method**
Ball Indentation Hardness	74.0	MPa	ISO 2039-1
Thermal	**Nominal Value**	**Unit**	**Test Method**
Heat Deflection Temperature (0.45 MPa, Annealed)	89.0	°C	ISO 75-2/B
Heat Deflection Temperature (1.8 MPa, Annealed)	85.0	°C	ISO 75-2/A
Vicat Softening Temperature	89.0	°C	ASTM D1525 [2]
Vicat Softening Temperature	98.0	°C	ISO 306/A50
CLTE - Flow	8.0E-5	cm/cm/°C	ISO 11359-2
Thermal Conductivity	0.17	W/m/K	DIN 52612
Electrical	**Nominal Value**	**Unit**	**Test Method**
Surface Resistivity	> 1.0E+13	ohm	IEC 60093
Volume Resistivity	> 1.0E+18	ohm·cm	IEC 60093
Dielectric Constant (100 Hz)	2.50		IEC 60250

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Electrical	Nominal Value	Unit	Test Method
Dissipation Factor			IEC 60250
100 Hz	4.0E-4		
1 MHz	4.0E-4		

Flammability	Nominal Value	Unit	Test Method
Flame Rating	HB		UL 94

Processing Information

Injection	Nominal Value	Unit
Processing (Melt) Temp	180 to 260	°C

Notes

[1] Typical properties: these are not to be construed as specifications.

[2] Rate B (120°C/h), Loading 2 (50 N)