

Styrolution PS 486N

High Impact Polystyrene (HIPS)

TECHNICAL
DATASHEET

DESCRIPTION

Styrolution PS 486N is a normal flowing, high impact grade that is especially suitable for blends with a high proportion of general purpose polystyrene (preferably Styrolution PS 165N or Styrolution PS 158N for better heat resistance). It is suitable for all kinds of thermoformed packaging.

FEATURES

- Suitable for blending with high proportions of GPPS
- UL 94 HB

APPLICATIONS

- Food packaging and disposables
- Cups
- Cutlery
- Blends with GPPS

Property, Test Condition	Standard	Unit	Values
Rheological Properties			
Melt Volume Rate, 200 °C/5 kg	ISO 1133	cm ³ /10 min	3.9
Mechanical Properties			
Charpy Notched Impact Strength, 23° C	ISO 179/1eA	kJ/m ²	12
Tensile Stress at Yield, 23 °C	ISO 527	MPa	24
Tensile Strain at Yield, 23 °C	ISO 527	%	1.5
Tensile Modulus	ISO 527	MPa	1800
Elongation at Break (MD)	ISO 527	%	35
Hardness, Ball Indentation	ISO 2039-1	MPa	66
Thermal Properties			
Vicat Softening Temperature VST/B/50 (50N, 50 °C/h)	ISO 306	°C	90
Heat Deflection Temperature A; (annealed 4 h/80 °C; 1.8 MPa)	ISO 75	°C	74
Heat Deflection Temperature B; (annealed 4 h/80 °C; 0.45 MPa)	ISO 75	°C	83
Coefficient of Linear Thermal Expansion	ISO 11359	10 ⁻⁶ /°C	80
Thermal Conductivity	ISO 22007-4	W/(m K)	0.17
Electrical Properties			
Dielectric Constant (100 Hz)	IEC 62631-2-1	-	2.5

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Property, Test Condition	Standard	Unit	Values
Dissipation Factor (100 Hz)	IEC 62631-2-1	10 ⁻⁴	4
Dissipation Factor (1 MHz)	IEC 62631-2-1	10 ⁻⁴	4
Volume Resistivity	IEC 62631-3-1	Ohm*m	>10 ¹⁶
Surface Resistivity	IEC 62631-3-1	Ohm	>10 ¹³
Other Properties			
Density	ISO 1183	kg/m ³	1040
Processing			
Linear Mold Shrinkage	ISO 294-4	%	0.4 - 0.7
Melt Temperature Range	ISO 294	°C	180 - 260
Injection Velocity	ISO 294	mm/s	200