INEOS Styrolution

ALBIS

Styrolution® PS 485N

PS-I

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Styrolution PS 485N is a high-impact grade of polystyrene for extruded sheets with a matt surface.

Rheological properties	Value	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	4	cm³/10min	ISO 1133
Temperature	200	°C	-
Load	5	kg	-

Mechanical Properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	1650	MPa	ISO 527
Yield stress	23	MPa	ISO 527
Yield strain	1.6	%	ISO 527
Nominal strain at break	35	%	ISO 527
Impact Strength (Charpy), -30°C	140	kJ/m²	ISO 179/1eU
Notched Impact Strength (Charpy), +23°C	10	kJ/m²	ISO 179/1eA

Thermal Properties	Value	Unit	Test Standard
ISO Data			
Vicat softening temperature, 50°C/h 50N	90	°C	ISO 306
Coeff. of Linear Therm. Expansion, parallel	80	E-6/K	ISO 11359-1/-2
Burning Behav. at 1.5 mm Nom. Thickn.	HB	class	UL 94
Thickness tested	1.5	mm	-
UL recognition	yes	-	-
Burning Behav. at thickness h	HB	class	UL 94
Thickness tested	3.0	mm	-
UL recognition	yes	-	-

Electrical Properties	Value	Unit	Test Standard
ISO Data			
Relative permittivity, 100Hz	2.5	-	IEC 62631-2-1
Dissipation Factor, 100Hz	4	E-4	IEC 62631-2-1
Dissipation Factor, 1MHz	4	E-4	IEC 62631-2-1

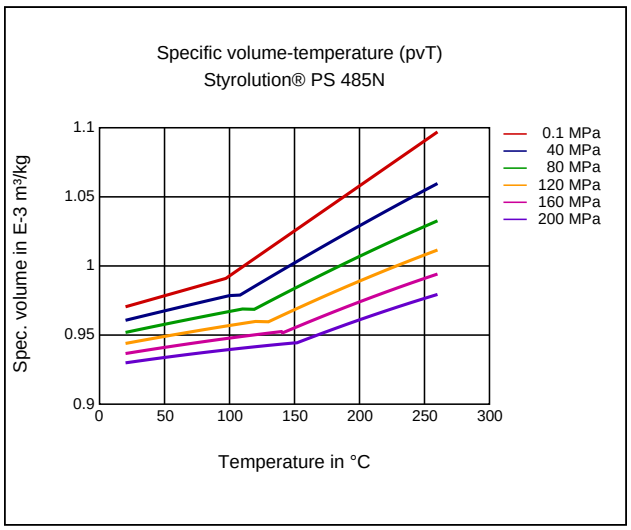
Other Properties	Value	Unit	Test Standard
ISO Data			
Density	1040	kg/m³	ISO 1183

Rheological calculation properties	Value	Unit	Test Standard
ISO Data			
Thermal Conductivity of Melt	0.155	W/(m K)	-
Spec. heat capacity of melt	2100	J/(kg K)	-
Ejection temperature	77	°C	-

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Melt temperature	180 - 260	°C	-
Mold temperature	10 - 60	°C	-

Diagrams

Specific volume-temperature (pvT)



Characteristics

Processing
Injection Molding, Film Extrusion, Profile Extrusion, Sheet Extrusion, Other Extrusion, Thermoforming

Special Characteristics
Impact modified

Delivery form
Pellets

Injection Molding
PROCESSING

Melt temperature, range: 180 - 260 °C

Mold temperature: 45 °C

Styrolution PS 485N can be processed by all conventional techniques using standard conditions for impact polystyrene. Mass temperature during extrusion should be below 240 °C.

Film Extrusion
PROCESSING

Blown film, Melt temperature: 180 - 210 °C

Flat film, Melt temperature: 200 - 240 °C

Extrusion temperatures should not exceed 240 °C.

Other Extrusion
PROCESSING

Pipes, Melt temperature: 180 - 210 °C

Profile extrusion
PROCESSING

Profiles, Melt temperature: 210 °C

Sheet Extrusion
PROCESSING

Plates, Melt temperature: 200 - 240 °C

Extrusion temperatures should not exceed 240 °C.

Disclaimer

Liability Exclusion
These guide values are measured and provided by the product manufacturer and have been determined on standardised test specimens and can be affected by pigmentation, mould design and processing conditions. M-Base has taken the guide values from the producer's original Technical Data Sheet. **ALBIS AND M-BASE ARE THEREFORE NOT RESPONSIBLE FOR THE ACCURACY OF THE GUIDE VALUES AND CANNOT GIVE ANY WARRANTY WITH REGARD TO THEIR CORRECTNESS.**

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