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INEOS Styrolution

ALBIS

Styrolution® PS 486N

PS-I

INEOS Styrolution

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

Rheological properties	Value	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	3.9	cm³/10min	ISO 1133
Temperature	200	°C	-
Load	5	kg	-

Mechanical Properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	1800	MPa	ISO 527
Yield stress	24	MPa	ISO 527
Yield strain	1.5	%	ISO 527
Nominal strain at break	35	%	ISO 527
Notched Impact Strength (Charpy), +23°C	12	kJ/m²	ISO 179/1eA

Thermal Properties	Value	Unit	Test Standard
ISO Data			
Temp. of deflection under load (1.80 MPa)	74	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	83	°C	ISO 75-1/-2
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	0.165	W/(m K)	-
Spec. heat capacity of melt	1990	J/(kg K)	-
Ejection temperature	86	°C	-

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

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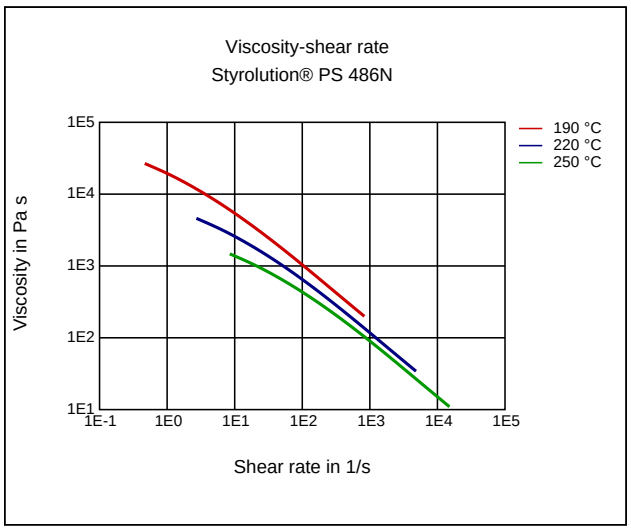
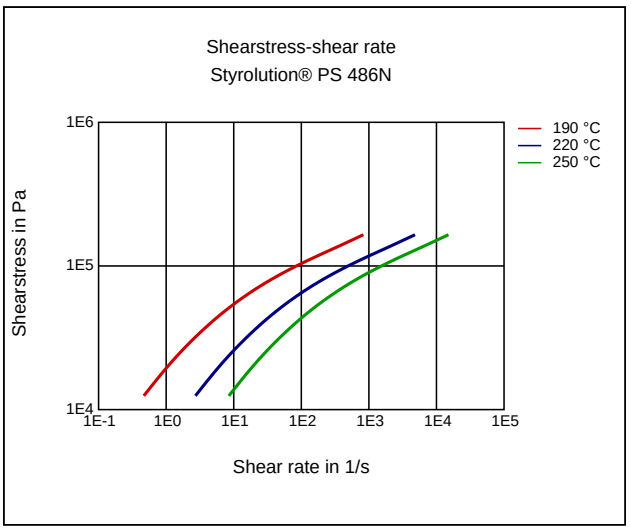
Diagrams

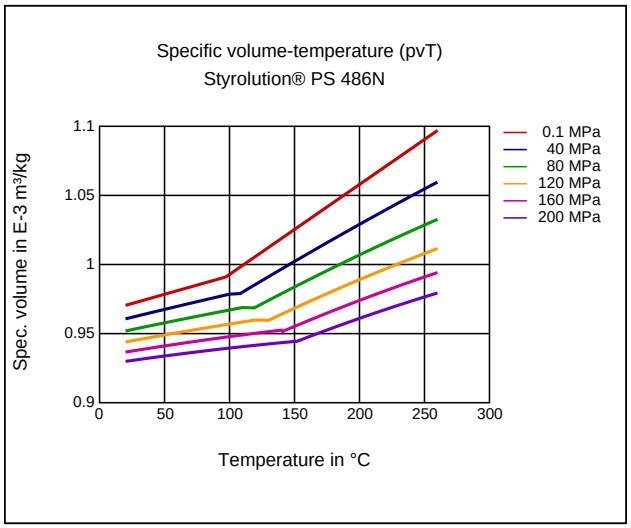
Viscosity-shear rate



Shearstress-shear rate



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 486N can be injection molded at temperatures between 180 and 260 °C, and recommended mold temperatures between 10 and 60 °C. Extrusion temperatures should not exceed 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 - 230°C