

Styrolution® PS 495N is a high flow, high impact polystyrene with a good heat resistance and a high stiffness.

Rheological properties	Value	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	9.5	cm ³ /10min	ISO 1133
Temperature	200	°C	-
Load	5	kg	-

Mechanical Properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	2000	MPa	ISO 527-1/-2
Yield stress	26	MPa	ISO 527-1/-2
Yield strain	1.5	%	ISO 527-1/-2
Nominal strain at break	40	%	ISO 527-1/-2
Charpy impact strength (+23°C)	no break	kJ/m ²	ISO 179/1eU
Charpy impact strength, -30°C	130	kJ/m ²	ISO 179/1eU
Charpy notched impact strength (+23°C)	17	kJ/m ²	ISO 179/1eA

Thermal Properties	Value	Unit	Test Standard
ISO Data			
Temp. of deflection under load (1.80 MPa)	85	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	89	°C	ISO 75-1/-2
Vicat softening temperature, 50°C/h 50N	88.5	°C	ISO 306
Burning behav. at 1.5 mm nom. thickn.	HB	class	UL 94
Burning behav. at thickness h	HB	class	UL 94
Thickness tested	3.0	mm	-
Coeff. of linear therm. expansion, parallel	100	E-6/K	ISO 11359-1/-2

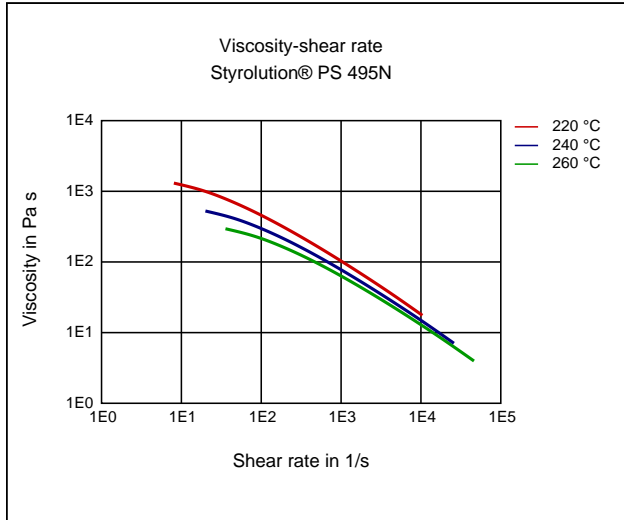
Electrical Properties	Value	Unit	Test Standard
ISO Data			
Relative permittivity, 100Hz	2.5	-	IEC 60250
Relative permittivity, 1MHz	2.5	-	IEC 60250
Dissipation factor, 100Hz	4	E-4	IEC 60250
Dissipation factor, 1MHz	4	E-4	IEC 60250
Comparative tracking index	500	-	IEC 60112

Other Properties	Value	Unit	Test Standard
ISO Data			
Density	1030	kg/m ³	ISO 1183

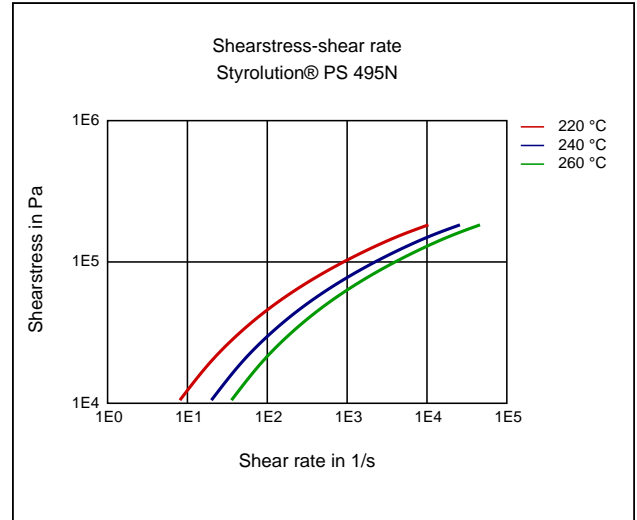
Rheological calculation properties	Value	Unit	Test Standard
ISO Data			
Density of melt	935	kg/m ³	-
Thermal conductivity of melt	0.165	W/(m K)	-
Spec. heat capacity of melt	2290	J/(kg K)	-
Ejection temperature	88	°C	-

Diagrams

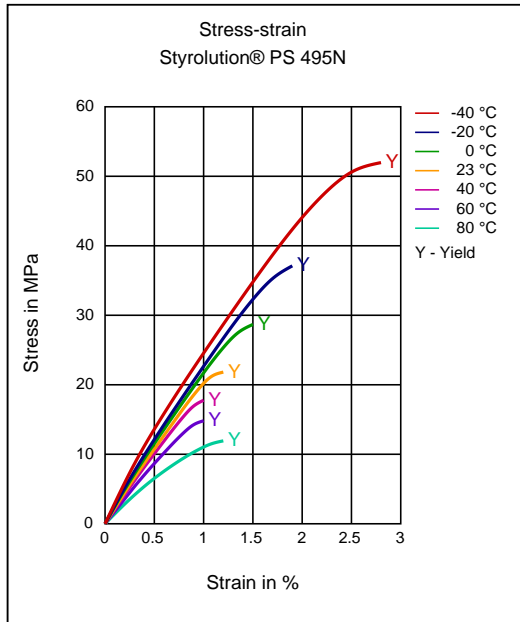
Viscosity-shear rate



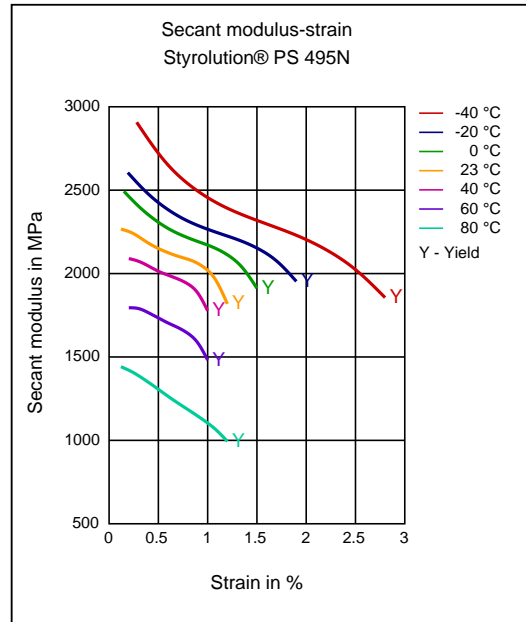
Shearstress-shear rate



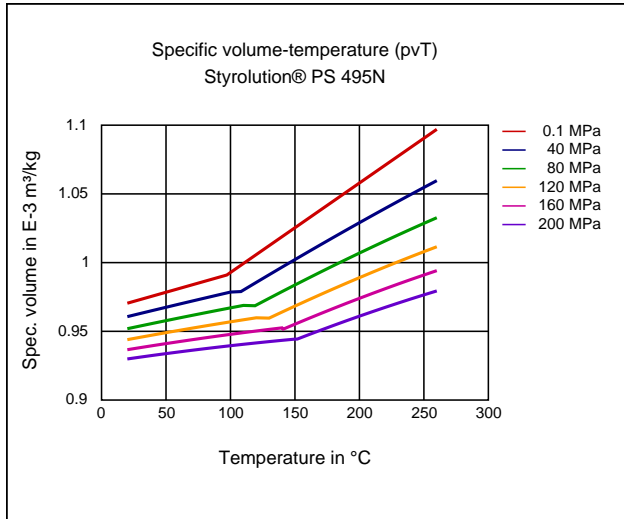
Stress-strain



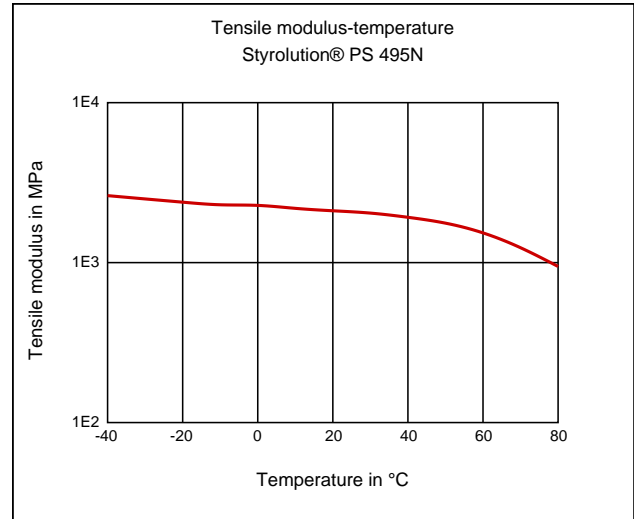
Secant modulus-strain



Specific volume-temperature (pvT)



Tensile modulus-temperature



Characteristics

Processing

Injection Molding

Special Characteristics

Impact modified

Injection Molding

PROCESSING

- injection molding, Melt temperature, range: 180 - 260 °C
- injection molding, Melt temperature, recommended: 220 °C
- injection molding, Mold temperature, range: 10 - 60 °C
- injection molding, Mold temperature, recommended: 40 °C

Polystyrol 495 F can be injection moulded under different conditions depending on machinery available and articles moulded. Mass temperature can be as high as 260°C. Polystyrol 495 F is suitable for gas assisted injection moulding.

Disclaimer

These are guide values and not a specification. The guide values are measured and provided by the product manufacturer. M-Base has taken the guide values from the producer's original Technical Data Sheet. Neither ALBIS nor M-Base is responsible / liable for the accuracy of the guide values. Any information given on the chemical and physical characteristics of products supplied by ALBIS, including technical advice on applications whether verbally, in writing or by testing the product, is given to the best of our knowledge. It does not exempt the buyer from carrying out their own investigations and tests in order to ascertain the product's specific suitability for the purpose intended. The buyer is solely responsible for the application, utilization and processing of the product, and must observe the laws and government regulations and the consequential rights of third parties. ALBIS expressly advises against the use of this product in any medical, pharmaceutical or diagnostic application. At all times our Conditions of Sale apply.