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INEOS Styrolution

ALBIS

Styrolux® 3G46

SB

INEOS Styrolution

Styrolux® 3G46 comprises of clear styrene butadiene copolymer. The grade has in general an intrinsic toughness, is easy to process and works as modifier and compatibilizer not only in polystyrene but in many other polymers, e.g. polyolefins. For Styrolux® 3G46 food contact statements are available upon request. Styrolux® 3G46 is specifically designed for sheet- and film-extrusion and thermoformed articles. It shows a high performance in blends with general-purpose polystyrene, providing parts with an excellent balance of transparency and toughness. Styrolux® 3G46 is also offered for medical applications and is Gamma, X-ray & ETO sterilizable.

Rheological properties	Value	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	12	cm³/10min	ISO 1133
Temperature	200	°C	-
Load	5	kg	-

Mechanical Properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	1500	MPa	ISO 527
Yield stress	27	MPa	ISO 527
Yield strain	2	%	ISO 527
Nominal strain at break	>50	%	ISO 527
Notched Impact Strength (Charpy), +23°C	1.5	kJ/m²	ISO 179/1eA

Thermal Properties	Value	Unit	Test Standard
ISO Data			
Temp. of deflection under load (1.80 MPa)	62	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	76	°C	ISO 75-1/-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	-	-

Other Properties	Value	Unit	Test Standard
ISO Data			
Water Absorption	0.07	%	Sim. to ISO 62
Density	1020	kg/m³	ISO 1183

Rheological calculation properties	Value	Unit	Test Standard
ISO Data			
Thermal Conductivity of Melt	0.16	W/(m K)	-
Spec. heat capacity of melt	2300	J/(kg K)	-
Ejection temperature	71	°C	-

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Melt temperature	180 - 250	°C	-
Mold temperature	30 - 50	°C	-

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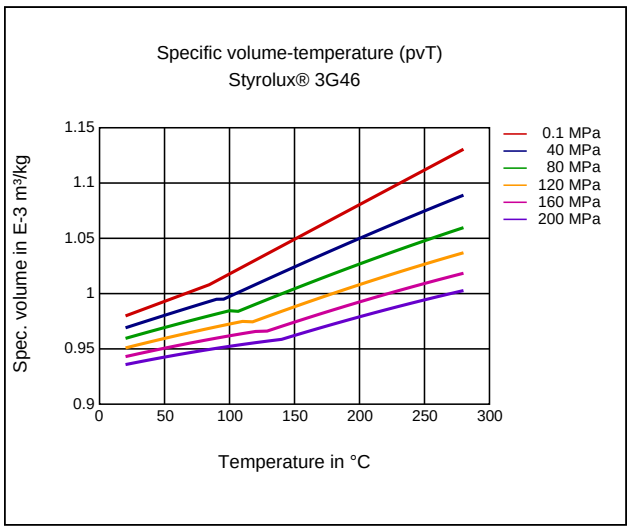
Diagrams

Specific volume-temperature (pvT)



Characteristics

Processing

Injection Molding, Film Extrusion, Sheet Extrusion, Blow Molding

Delivery form

Pellets

Special Characteristics

Sterilizable, Ethylene Oxide (EtO) Sterilization, Gamma irradiation sterilization

Chemical Resistance

Radiation Resistance

Certifications

Medical, Biocompatibility ISO 10993, US Pharmacopeia Class VI Approved, Drug Master File, Long term supply assurance, Food approval, Food approval 10/2011, Food Contact (FDA)

Applications

Medical

Injection Molding

As a rule, the Styrolux® granules do not have to be pre-dried. However, in the event of unfavorable storage or transportation conditions involving severe temperature fluctuations, moisture can condense on the surface of the granules and this then has to be removed in a pre-drying step. The granules should be pre-dried in a dry-air dryer for 3 to 4 hours at a temperature of about 50°C.

PROCESSING

Melt temperature, range: 180 - 250°C

Mold temperature, range: 30 - 50°C

Film Extrusion

PROCESSING

Flat film, Melt temperature: 190 - 230°C