INEOS STYROLUTION

ALBIS

Styrolux® 3G46

SB

INEOS Styrolution Europe GmbH

Styrolux® 3G46 is a clear styrene-butadiene copolymer (SBC) developed specifically for sheet- and film extrusion and for thermoformed articles. Styrolux® 3G46 is designed for improved performance in blends with general-purpose polystyrene, providing parts with an excellent balance of transparency and toughness.

Suggested applications include the whole array of food and non-food packaging like blister packs, drink cups, caps and lids, deli-trays and sheeting.

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	1550	MPa	ISO 527
Yield stress	27	MPa	ISO 527
Yield strain	2	%	ISO 527
Nominal strain at break	>50	%	ISO 527
Charpy impact strength (+23°C)	no break	kJ/m²	ISO 179/1eU
Charpy notched impact strength (+23°C)	3	kJ/m²	ISO 179/1eA

Thermal Properties	Value	Unit	Test Standard
ISO Data			
Temp. of deflection under load (1.80 MPa)	58	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	75	°C	ISO 75-1/-2
Vicat softening temperature, 50°C/h 50N	51	°C	ISO 306
Burning behav. at 1.5 mm nom. thickn.	HB	class	UL 94
Thickness tested	1.6	mm	-
Burning behav. at thickness h	HB	class	UL 94
Thickness tested	3.2	mm	-

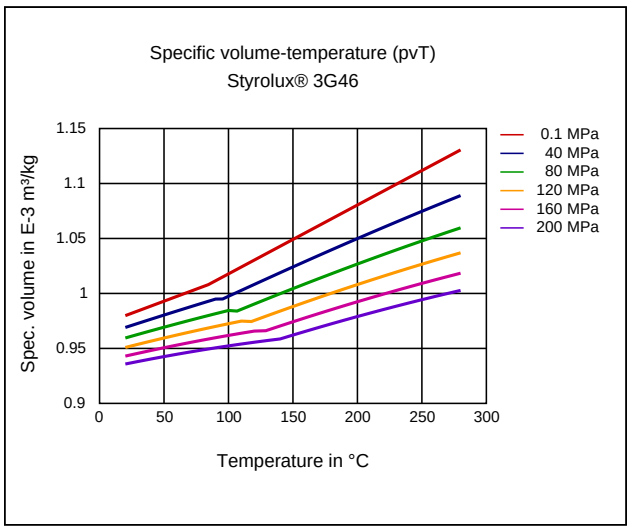
Electrical Properties	Value	Unit	Test Standard
ISO Data			
Relative permittivity, 100Hz	2.5	-	IEC 62631-2-1
Relative permittivity, 1MHz	2.5	-	IEC 62631-2-1
Volume resistivity	>1E13	Ohm*m	IEC 62631-3-1
Surface resistivity	1E15	Ohm	IEC 62631-3-2

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

Rheological calculation properties	Value	Unit	Test Standard
ISO Data			
Density of melt	910	kg/m³	-
Thermal conductivity of melt	0.16	W/(m K)	-
Spec. heat capacity of melt	2300	J/(kg K)	-
Ejection temperature	71	°C	-

Diagrams

Specific volume-temperature (pvT)



Characteristics

Processing
Injection Molding, Film Extrusion, Sheet Extrusion, Blow Molding

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
PROCESSING
injection molding, Melt temperature, range: 180 - 250 °C
injection molding, Melt temperature, recommended: 220 °C
injection molding, Mold temperature, range: 30 - 50 °C
injection molding, Mold temperature, recommended: 40 °C

Film extrusion
PROCESSING
Extrusion, Flat film, Melt temperature: 190 - 230 °C

Disclaimer

At all times, our standard terms and conditions of sale apply.