

Styroflex® 2G66

SB

INEOS Styrolution

Styroflex® 2G66 is a thermoplastic elastomer from clear styrene butadiene copolymers (S-TPE), which is more polar than comparable SBS or SEBS grades. The grade provides a very high puncture resistance to foils in multilayer applications and increases as additive the toughness of compounds. It is easy to process and works as modifier and compatibilizer in many polymers, e.g. polyolefins. For Styroflex® 2G66 food contact statements are available upon request. Styroflex® 2G66 is suitable for extrusion (blown and cast film) and injection molding and offers a combination of high resilience and toughness with good transparency and process stability. Styroflex® 2G66 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	13	cm ³ /10min	ISO 1133
Temperature	200	°C	-
Load	5	kg	-

Mechanical Properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	70	MPa	ISO 527
Notched Impact Strength (Charpy), -30°C	2	kJ/m ²	ISO 179/1eA
Shore Hardness A (15s)	86	-	ISO 868

Thermal Properties	Value	Unit	Test Standard
ISO Data			
Vicat softening temperature, 50°C/h 50N	39	°C	ISO 306

Electrical Properties	Value	Unit	Test Standard
ISO Data			
Relative permittivity, 100Hz	2.5	-	IEC 62631-2-1

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	998	kg/m ³	ISO 1183

Film Properties	Value	Unit	Test Standard
ISO Data			
Elmendorf Tear Resistance, parallel	660	N	ISO 6383-2
Elmendorf Tear Resistance, normal	816	N	ISO 6383-2
Haze	10	-	ISO 14782

Rheological calculation properties	Value	Unit	Test Standard
ISO Data			
Density of melt	890	kg/m ³	-
Thermal Conductivity of Melt	0.19	W/(m K)	-
Spec. heat capacity of melt	2310	J/(kg K)	-
Ejection temperature	96	°C	-

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Melt temperature	190 - 220	°C	-
Mold temperature	30 - 50	°C	-

Characteristics

Processing

Injection Molding, Film Extrusion, Profile Extrusion, Transfer Molding

Delivery form

Pellets

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

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Special Characteristics

Sterilizable

Injection Molding

As a rule, the Styroflex® 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.

Film Extrusion

PROCESSING

Blown film, Melt temperature: 170 - 190 °C

Flat film, Melt temperature: 170 - 240 °C
