

Styreflex® 2G66 is a styrene-butadiene block copolymer (SBC) with the properties of a thermoplastic elastomer (S-TPE). Styreflex® 2G66 is the only S-TPE with a styrene content of at least 60 % styrene and a rubber fraction of at least 70 %. Characteristic properties of Styreflex® 2G66 are therefore: high transparency, excellent thermostability, very high elongation at break and high resilience. Styreflex® 2G66 is more polar than comparable SBS or SEBS grades and offers a good printability.

Applications: Styreflex® 2G66 is a very versatile material, suitable for a variety of applications: In multilayer (coextruded with PE-EVA), thin-gauge film for the supporting layer, Styreflex® 2G66 is used e.g. for packaging fresh meat. Styreflex® 2G66 is also used for the modification of styrenic polymers; e.g. blended with high impact polystyrene it improves the toughness and the stress cracking resistance (ESCR) significantly. Styreflex® 2G66 is also suited for two-component injection molding, especially with polystyrene, to which it has excellent adhesion. Styreflex® 2G66 and compounds based on Styreflex® may be used for conventional injection molding (eg. of toys) and the extrusion of profiles, flexible tubing and soft foams.

Rheological properties	Value	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	14	cm ³ /10min	ISO 1133
Temperature	200	°C	-
Load	5	kg	-

Mechanical Properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	120	MPa	ISO 527-1/-2
Yield stress	4	MPa	ISO 527-1/-2
Yield strain	5	%	ISO 527-1/-2
Nominal strain at break	>50	%	ISO 527-1/-2
Charpy impact strength (+23°C)	no break	kJ/m ²	ISO 179/1eU
Charpy impact strength, -30°C	no break	kJ/m ²	ISO 179/1eU
Charpy notched impact strength (+23°C)	no break	kJ/m ²	ISO 179/1eA

Thermal Properties	Value	Unit	Test Standard
ISO Data			
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 60250
Relative permittivity, 1MHz	2.5	-	IEC 60250
Volume resistivity	>1E13	Ohm*m	IEC 60093
Surface resistivity	1E15	Ohm	IEC 60093

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	1000	kg/m ³	ISO 1183

Film Properties	Value	Unit	Test Standard
ISO Data			
Elmendorf Tear resistance, parallel	650	N	ISO 6383-2
Elmendorf Tear resistance, normal	800	N	ISO 6383-2
Haze	1.4	-	ISO 14782
WVTR, 23°C/85%r.h.	0.27	g/(m ² *d)	ISO 15106-1/-2
Oxygen transmission rate, 23°C/0%r.h.	27.2	cm ³ /(m ² *d*bar)	ISO 15105-1/-2
Thickness of specimen	0.05	mm	-

Characteristics

Processing

Injection Molding, Film Extrusion, Profile Extrusion, Transfer Molding

Injection Molding

PROCESSING

injection molding, Melt temperature, range: 190 - 220 °C

injection molding, Mold temperature, range: 30 - 50 °C

Film extrusion

PROCESSING

Extrusion, Blown film, Melt temperature: 170 - 190 °C

Extrusion, Flat film, Melt temperature: 170 - 240 °C

Disclaimer

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