

# Styrofex 2G66

Styrene Butadiene Copolymer (SBC)

## TECHNICAL DATASHEET

### DESCRIPTION

Styrofex® 2G66 is a styrene-butadiene block copolymer (SBC) with the properties of a thermoplastic elastomer (S-TPE) suitable for extrusion (blown and cast film) and for injection molding. Styrofex® 2G66 is also used for polymers modification and compatibilization. It is more polar than comparable SBS or SEBS grades and offers a combination of high resilience and toughness with good transparency and process stability.

### FEATURES

- Excellent thermostability
- Very high elongation at break
- High resilience
- High transparency
- Regulatory compliant
- High flow

### APPLICATIONS

- Food packaging and films
- Stretch hood/ stretch film
- Impact modification / ESCR improvement
- Compounding, compatibilization, recycling
- Medical devices
- Adhesives, Soft touch injection molding; toys, 2-K inj. mold.

Property, Test Condition	Standard	Unit	Values
<b>Rheological Properties</b>			
Melt Flow Rate, 200 °C/5 kg	ASTM D 1238	g/10 min	11
<b>Mechanical Properties</b>			
Tensile Stress at Yield, 23 °C	ASTM D 638	psi	450
Tensile Modulus	ASTM D 638	psi x 10 <sup>3</sup>	18.6
Tensile Modulus (MD)	ASTM D 882	psi	24600
Tensile Modulus (TD)	ASTM D 882	psi	18600
Elongation at Break (MD)	ASTM D 882		550
Elongation at Break (TD)	ASTM D 882	%	540
Flexural Modulus, 23 °C	ASTM D 790	psi x 10 <sup>3</sup>	12000
Flexural Stress at 5% Deflection	ASTM D 790	psi	392
Hardness, Shore D	ASTM D 2240	-	36
Hardness, Shore A	ASTM D 2240	-	91
Elmendorf Tear (MD)	ASTM D 1922	lbs	1.17
Elmendorf Tear (TD)	ASTM D 1922	lbs	1.19

# Styroflex 2G66

Styrene Butadiene Copolymer (SBC)

## TECHNICAL DATASHEET

Property, Test Condition	Standard	Unit	Values
Puncture, Energy at Peak Force	ASTM D 3763	in-lb	21.3
Puncture, Total Energy	ASTM D 3763	in-lb	30.2
<b>Thermal Properties</b>			
Vicat Softening Temperature, B/1 ( 120 °C/h, 10N)	ASTM D 1525	°F	118
<b>Electrical Properties</b>			
Volume Resistivity	ASTM D 257	-	>10 <sup>13</sup>
Surface Resistivity	ASTM D 257	-	10 <sup>15</sup>
<b>Optical Properties</b>			
Refractive Index, Sodium D Line	ASTM D 542	-	1.565
Light Transmission at 550 nm	ASTM D 1003	%	93
Haze	ASTM D 1003	%	1
<b>Other Properties</b>			
Density	ASTM D 792	lb/in <sup>3</sup>	1.002
Water Shrinkage (100 °C for 30 sec.)	-	%	0.63
Oxygen Transmission Rate (23 °C/0% RH)	ASTM D 3985	cc/100in <sup>2</sup> /day	5580
Water Vapor Transmission Rate (WVTR) (23 °C/0% to 85% RH gradient)	ASTM F1249-06	g/100in <sup>2</sup> /day	8 - 10