

Styroflex® 2G66

Styrene Butadiene Block Copolymer

INEOS Styrolution Group GmbH

Message:

Styroflex® 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. Styroflex® 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

APPLICATIONS

- Food packaging and films
- Stretch hood/ stretch film
- Impact modification / ESCR improvement
- Compounding, compatibilization & recycling
- Medical devices

General Information	
UL YellowCard	E108538-100840239
Features	Block Copolymer
	Good processing stability
	Definition, high
	Thermal stability, good
	Good toughness
	Extended tensile rate
	Elastic
Uses	Blown Film
	Films
	Composite
	Stretch winding
	cast film
	Food packaging
	Plastic modification
	Medical/nursing supplies
Appearance	Clear/transparent
Forms	Particle
Processing Method	Blow film
	Extrusion
	cast film
	Injection molding

Physical	Nominal Value	Unit	Test Method
Specific Gravity			
--	0.999	g/cm ³	ASTM D792
--	1.00	g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR) (200°C/5.0 kg)	11	g/10 min	ASTM D1238
Melt Volume-Flow Rate (MVR) (200°C/5.0 kg)	13.0	cm ³ /10min	ISO 1133
Water Absorption (Saturation, 23°C)	0.070	%	ISO 62
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness			
Shaw A	91		ASTM D2240
Shaw D	36		ASTM D2240
Shaw A	84		ISO 868
Shaw D	34		ISO 868
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
--	128	MPa	ASTM D638
--	120	MPa	ISO 527-2
Tensile Strength			
Yield, 23°C	3.10	MPa	ASTM D638
Yield, 23°C	4.00	MPa	ISO 527-2
Tensile Strain (Yield, 23°C)	5.0	%	ISO 527-2
Nominal Tensile Strain at Break (23°C)	> 500	%	ISO 527-2
Flexural Modulus			
--	82.7	MPa	ASTM D790
--	140	MPa	ISO 178
Flexural Strength			
5.0% strain	2.70	MPa	ASTM D790
--	4.00	MPa	ISO 178
Films	Nominal Value	Unit	Test Method
Elastic Modulus - MD	170	MPa	ASTM D882
Elastic Modulus - TD	128	MPa	ASTM D882
Tensile Elongation			
MD: Fracture	550	%	ASTM D882
TD: Fracture	540	%	ASTM D882
MD: Fracture	> 500	%	ISO 527-3
Elmendorf Tear Strength			
MD	530	g	ASTM D1922
TD	540	g	ASTM D1922
Oxygen Transmission Rate (23°C, 0% RH)	86000	cm ³ /m ² /24 hr	ASTM D3985
Water Vapor Transmission Rate ¹ (23°C)	150	g/m ² /24 hr	ASTM F1249

Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179
-30°C	2.0	kJ/m ²	ISO 179
23°C	No Break		ISO 179
Charpy Unnotched Impact Strength			ISO 179
-30°C	No Break		ISO 179
23°C	No Break		ISO 179
Notched Izod Impact (23°C)	No Break		ASTM D256
Instrumented Dart Impact			ASTM D3763
Peak force	2.41	J	ASTM D3763
Total energy	3.41	J	ASTM D3763
Thermal	Nominal Value	Unit	Test Method
Vicat Softening Temperature	47.8	°C	ASTM D1525 ²
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	1.0E+15	ohms	ASTM D257, IEC 60093
Volume Resistivity	> 1.0E+15	ohms·cm	ASTM D257, IEC 60093
Dielectric Constant (100 Hz)	2.50		IEC 60250
Optical	Nominal Value	Unit	Test Method
Refractive Index ³	1.565		ASTM D542, ISO 489
Transmittance (550 nm)	93.0	%	ASTM D1003
Haze	1.0	%	ASTM D1003
Injection	Nominal Value	Unit	
Processing (Melt) Temp	170 - 240	°C	
Mold Temperature	30 - 50	°C	
Extrusion	Nominal Value	Unit	
Melt Temperature	170 - 240	°C	
NOTE			
1.	0% to 85% RH gradient		
2.	标准 B (120°C/h), 压力1 (10N)		
3.	Sodium D Line		

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