

# Styrolux® 3G46

## Styrene Butadiene Styrene Block Copolymer

### BASF Corporation

**Product Description**  
Styrolux 3G46 is a thermoplastic styrene-butadiene block copolymer which is suitable for injection molding, extrusion and thermoforming. It offers an outstanding combination of crystal clarity and good toughness.

General			
Material Status	• Commercial: Active		
Availability	• Europe	• North America	
Features	• Food Contact Acceptable	• Good Toughness	• High Clarity
Agency Ratings	• FDA 21 CFR 177.1640		
RoHS Compliance	• RoHS Compliant		
Appearance	• Clear/Transparent		
Forms	• Pellets		
Processing Method	• Blown Film	• Injection Molding	• Thermoforming
	• Extrusion		

Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.02	g/cm <sup>3</sup>	ASTM D792
Melt Mass-Flow Rate (MFR) (200°C/5.0 kg)	12	g/10 min	ASTM D1238
Molding Shrinkage - Flow	0.65	%	ASTM D955
Water Absorption (Saturation, 23°C)	0.070	%	ASTM D570

Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus <sup>2</sup> (23°C)	1740	MPa	ASTM D638
Tensile Strength <sup>3</sup> (Yield, 23°C)	26.1	MPa	ASTM D638
Tensile Elongation (Break, 23°C)	210	%	ASTM D638
Flexural Modulus (23°C)	1320	MPa	ASTM D790
Flexural Strength (23°C)	27.3	MPa	ASTM D790

Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (23°C)	32.0	J/m	ASTM D256
Instrumented Dart Impact (Total Energy)	20.2	J	ASTM D3763

Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore D)	75		ASTM D2240

Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
0.45 MPa, Unannealed	80.0	°C	
1.8 MPa, Unannealed	66.0	°C	
Vicat Softening Temperature	89.0	°C	ASTM D1525 <sup>4</sup>
CLTE - Transverse	0.000072	cm/cm/°C	ASTM E831

Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	> 1.0E+14	ohms	ASTM D257
Volume Resistivity	> 1.0E+13	ohm-cm	ASTM D257
Dielectric Constant (1.00 mm, 1 MHz)	2.50		ASTM D150

Optical	Nominal Value	Unit	Test Method
Refractive Index	1.572		ASTM D542
Transmittance	92.0	%	ASTM D1003
Haze (25.4 µm, Blown Film)	0.21	%	ASTM D1003

Injection	Nominal Value	Unit
Processing (Melt) Temp	180 to 250	°C
Mold Temperature	30.0 to 50.0	°C

Extrusion	Nominal Value	Unit
Melt Temperature	190 to 230	°C

Dongguan Yi-Ming Plastic Chemical Co., Ltd.

如需要更多物性资料请查阅 [www.kedisujiao.com](http://www.kedisujiao.com)

备注：以上原料物性数据由厂家发布,我公司仅提供参考！数据如有变动，请联系原料生产厂家获知。我公司不承担任何法律责任！

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Thursday, December 24, 2009

**Notes**

<sup>1</sup> Typical properties: these are not to be construed as specifications.

<sup>2</sup> 51 mm/min

<sup>3</sup> 50 mm/min

<sup>4</sup> Rate B (120°C/h), Loading 1 (10 N)

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