

Styrolux® 3G55
SB

INEOS Styrolution Europe GmbH

Styrolux® 3G55 is a clear styrene-butadiene copolymer (SBC) used mainly in sheet extrusion and thermoforming applications. Styrolux® 3G55 is specifically designed for improved performance in blends with general-purpose polystyrene, providing parts with an excellent balance of toughness, transparency and economics. Because of the tendency of blocking, Styrolux® 3G55 is mainly used in inline thermoforming. Styrolux® 3G55 is difficult to print and decorate since it contains a microcrystalline wax.

Major applications include the whole array of food and non-food packagings, CAP/MAP, drink cups, caps, lids, deli-trays, shrink and labelling film.

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	900	MPa	ISO 527
Yield stress	15	MPa	ISO 527
Yield strain	2	%	ISO 527
Nominal strain at break	>50	%	ISO 527
Charpy impact strength (+23°C)	no break	kJ/m ²	ISO 179/1eU
Charpy notched impact strength (+23°C)	85	kJ/m ²	ISO 179/1eA

Thermal Properties	Value	Unit	Test Standard
ISO Data			
Temp. of deflection under load (1.80 MPa)	51	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	62	°C	ISO 75-1/-2
Vicat softening temperature, 50°C/h 50N	35	°C	ISO 306
Coeff. of linear therm. expansion, parallel	75	E-6/K	ISO 11359-1/-2
Burning behav. at 1.5 mm nom. thickn.	HB	class	UL 94
Thickness tested	1.6	mm	-

Electrical Properties	Value	Unit	Test Standard
ISO Data			
Relative permittivity, 100Hz	2.5	-	IEC 62631-2-1
Relative permittivity, 1MHz	2.5	-	IEC 62631-2-1
Dissipation factor, 100Hz	3	E-4	IEC 62631-2-1
Dissipation factor, 1MHz	8	E-4	IEC 62631-2-1
Volume resistivity	>1E13	Ohm*m	IEC 62631-3-1
Surface resistivity	>1E15	Ohm	IEC 62631-3-2
Comparative tracking index	600	-	IEC 60112

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	1010	kg/m ³	ISO 1183

Test specimen production	Value	Unit	Test Standard
ISO Data			
Injection Molding, melt temperature	230	°C	ISO 294
Injection Molding, mold temperature	50	°C	ISO 294
Injection Molding, injection velocity	200	mm/s	ISO 294

Characteristics
Processing

Film Extrusion, Sheet Extrusion, Other Extrusion, Blow Molding

Film extrusion

PROCESSING

Extrusion, Blown film, Melt temperature: 180 °C

Extrusion, Flat film, Melt temperature: 190 - 230 °C

Other extrusion

PROCESSING

Extrusion, Pipes, Melt temperature: 230 °C

Sheet extrusion

PROCESSING

Extrusion, Plates, Melt temperature: 190 °C

Disclaimer

These guide values are measured and provided by the product manufacturer and have been determined on standardised test specimens and can be affected by pigmentation, mould design and processing conditions. M-Base has taken the guide values from the producer's original Technical Data Sheet. **ALBIS AND M-BASE ARE THEREFORE NOT RESPONSIBLE FOR THE ACCURACY OF THE GUIDE VALUES AND CANNOT GIVE ANY WARRANTY WITH REGARD TO THEIR CORRECTNESS.**

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