

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	cm³/10min	ISO 1133
Temperature	200	°C	-
Load	5	kg	-

Mechanical Properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	900	MPa	ISO 527-1/-2
Yield stress	15	MPa	ISO 527-1/-2
Yield strain	2	%	ISO 527-1/-2
Nominal strain at break	>50	%	ISO 527-1/-2
Charpy impact strength (+23°C)	no break	kJ/m²	ISO 179/1eU
Charpy notched impact strength (+23°C)	85	kJ/m²	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
Burning behav. at 1.5 mm nom. thickn.	HB	class	UL 94
Thickness tested	1.6	mm	-
Coeff. of linear therm. expansion, parallel	75	E-6/K	ISO 11359-1/-2

Electrical Properties	Value	Unit	Test Standard
ISO Data			
Relative permittivity, 100Hz	2.5	-	IEC 60250
Relative permittivity, 1MHz	2.5	-	IEC 60250
Dissipation factor, 100Hz	3	E-4	IEC 60250
Dissipation factor, 1MHz	8	E-4	IEC 60250
Volume resistivity	>1E13	Ohm*m	IEC 60093
Surface resistivity	>1E15	Ohm	IEC 60093
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/m³	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 10724
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

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