

Styrolux® 3G46

Styrene-Butadiene Block Copolymer (SBC)

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.

RHEOLOGICAL	ASTM Test Method	Property Value
Melt Flow Rate (200 °C/5 Kg), g/10min.	D-1238	11
PHYSICAL	ASTM Test Method	Property Value
Density - Specific Gravity, g/cm ³	D-792	1.02
Mold Shrink, Linear-Flow (in/in)	D-955	0.0065
Water absorption saturated at 23°C, %	D-570	0.07
MECHANICAL	ASTM Test Method	Property Value
Hardness, Shore D	D-2240	75
Tensile Modulus (2 in/min), MPa (psi)	D-638	
23°C (73°F)		1,640 (238,000)
Tensile Strength, Yield (2 in/min), MPa (psi)	D-638	
23°C (73°F)		25.5 (3,700)
Tensile Elongation, Break, %	D-638	
23°C (73°F)		220
Flexural Modulus, MPa (psi)	D-790	
23°C (73°F)		1,330 (193,000)
Flexural Strength, MPa (psi)	D-790	
23°C (73°F)		27.2 (3,940)
IMPACT	ASTM Test Method	Property Value
Notched Izod Impact @ 23°C (73°F), J/M (ft-lbs/in)	D-256	30 (0.6)
Instrumented Dart Impact (total energy), J (in-lbs)	D-3763	20 (178)
THERMAL	ASTM Test Method	Property Value
DTUL @ 264 psi - Unannealed °C(°F)	D-648	60 (140)
DTUL @ 66 psi - Unannealed °C(°F)	D-648	76 (168)
Coef. of Linear Thermal Expansion, Normal, E-4/°C, mm/mm	E-831	0.72
Vicat, B/1 (120 °C/h, 10N), °C(°F)	D-1525	88 (190)
ELECTRICAL	ASTM Test Method	Property Value
Volume Resistivity	D-257	>1E13
Surface Resistivity	D-257	>1E14
Dielectric Constant (1000000 Hz, 0,0394 in)	D-150	2.5
OPTICAL	ASTM Test Method	Property Value
Light Transmission, %	D-1003	91
Refractive Index	D-542	1.572
INJECTION PROCESSING	ASTM Test Method	Property Value
Processing (Melt) Temperature, °C(°F)		180 to 250 (356 to 482)
Mold Temperature, °C(°F)		30 to 50 (86 to 122)

EXTRUSION PROCESSING		Property Value	
Melt Temperature, °C(°F)		190 to 230 (374 to 446)	
BLOWN FILM PROPERTIES, 1 mil (0.025 mm)		ASTM Test Method	Property Value
Haze, %		D-1003	0.2

Note

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