



Technical Data Sheet & MSDS Information

Part Name	Styrolux 656 C
S&R Part number	90153
Process	Plastic Injection Moulding
Colour	Clear
Product Description	<p>Styrolux® 656 C is a clear styrene-butadiene copolymer (SBC) with enhanced flow properties. It is used almost exclusively for injection moulding of rigid, tough parts requiring highest levels of clarity and surface gloss. Styrolux® 656 C is sterilisable by gamma-rays and offers good hinge properties.</p> <p>Major applications include: moulded containers and bottles, toys, displays, appliance housings, over-caps, hangers.</p>
Physical Form and Storage	<p>Styrolux® is supplied in pellet form and should be kept in its original containers in cool, dry place. Avoid direct exposure to sunlight. Styrolux® can be stored in silos at temperatures well below 45 °C.</p>
Product Safety	<p>During processing of Styrolux® small quantities of styrene monomer may be released into the atmosphere. At styrene vapour concentrations below 20 ppm no negative effects on health are expected. In our experience, the concentration of Styrene does not exceed 1 ppm in well ventilated workplaces - that is where five to eight air changes per hour are made.</p> <p>Styrolux® complies with the requirements of the FDA regulation 21 CFR 177.1640 and with most of the food regulations in European countries. The suitability of the articles for the intended food-contact application, the influence on taste and odour of the contents, global migration as well as adherence to specific limits has to be tested by the manufacturer or user in every case.</p> <p>For safety information please refer to our Material Safety Data Sheet for this product.</p>



Product information

Typical values for uncoloured product at 23 °C ¹⁾	Test Method ²⁾	Unit	Values ³⁾
Properties			
Density	ISO 1183	kg/m ³	1020
Water absorption, equilibrium in water at 23°C	Similar to ISO 62	%	0.07
Moisture absorption, equilibrium 23°C/50% r.h.	Similar to ISO 62	%	0.07

Processing

Processing: Injection moulding (M), Extrusion (E), Blow moulding (B)	-	-	M
Melt volume-flow rate MVR 200 °C/5 kg	ISO 1133	cm ³ /10min	16
Melt temperature, injection moulding	-	°C	180 – 250
Mould temperature, injection moulding	-	°C	30 - 50

Flammability

UL 94 rating at 1.6 mm thickness	IEC 60695-11-10	Class	HB
UL 94 rating at 3.18 mm thickness	IEC 60695-11-10	Class	HB

Mechanical Properties

Tensile modulus	ISO 527-1/-2	MPa	1800
Stress at yield	ISO 527-1/-2	MPa	35
Yield strain	ISO 527-1/-2	%	2.4
Nominal strain at break	ISO 527-1/-2	%	20
Flexural modulus	ISO 178	MPa	1900
Flexural stress	ISO 178	MPa	48
Charpy un-notched impact strength (23°C)	ISO 179/1eU	kJ/m ²	25
Charpy notched impact strength (23°C)	ISO 179/1eA	kJ/m ²	2
Izod notched impact strength 1A (23°C)	ISO 180/A	kJ/m ²	3.5
Izod notched impact strength 1A (-30°C)	ISO 180/A	kJ/m ²	3
Izod notched impact strength (23°C)	ASTM D 256	J/m	21
Shore D hardness	ISO 868	-	72

Thermal Properties

Vicat-softening-temperature VST/A/50	ISO 306	°C	85
Vicat-softening-temperature VST/B/50	ISO 306	°C	63
Deflection temperature at 1,8 MPa (HDT A)	ISO 75-1/-2	°C	67
HDT B (0.45 MPa)	ISO 75-1/-2	°C	77



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Electrical Properties			
Relative permittivity (100Hz)	IEC 60250	-	2.5
Relative permittivity (1 MHz)	IEC 60250	-	2.5
Volume resistivity	IEC 60093	Ohm*m	>1E13
Surface resistivity	IEC 60093	Ohm	1E15
Electric strength K20/P50	IEC 60243-1	kV/mm	140

Optical Properties			
Transparency, d = 2 mm	DIN 5036-3	%	90
Haze	DIN 5036-3	%	1.5

Footnotes

- 1) If product name or properties don't state otherwise.
- 2) Specimens according to CAMPUS.
- 3) The asterisk symbol "*" signifies inapplicable properties.

MSDS Information

As defined in the OSHA Hazard Communication Standard, 29 CFR 1910.1200 articles do not require a MSDS / SDS.

Articles are defined by:

An "article" means a manufactured item: (1) which is formed to a specific shape or design during manufacture (2) which has end use function(s) dependent in whole or in part upon its shape or design during end use; and (3) which does not release, or otherwise result in exposure to, a [hazardous chemical](#) under normal conditions of use. Any product which meets the definition of an "article," would be exempt from the requirements of the Standard.

Sinclair & Rush Ltd consider all finished parts as "articles" and as such they do not require an accompanying MSDS / SDS.

If you require a MSDS for the materials within the articles please contact osbma@sinclair-rush.co.uk