



Sinclair & Rush Ltd 11-13 Spectrum West, 20/20 Business Estate, St Lawrence Avenue, Maidstone ME16 OLL 01634 686 504

Technical Data Sheet & MSDS Information

Part Name	Styrolux 656 C
S&R Part number	90153
Process	Plastic Injection Moulding
Colour	Clear
Product Description	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. Major applications include: moulded containers and bottles, toys, displays, appliance housings, over-caps, hangers.
Physical Form and Storage	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.
Product Safety	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. Styrolux® complies with the requirements of the FDA regulation 21 CRF 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. For safety information please refer to our Material Safety Data Sheet for this product.

The information contained herein is believed to be reliable, but no representations, guarantees or warranties of any kind are made as to its accuracy, suitability for particular applications or the results to be obtained thereof. The information is based on laboratory work with small-scale equipment and does not necessarily indicate end product performance. Because of the availation in methods, conditions and equipment used commercially in processing these materials, no warranties or guarantees are made as to the suitability of the products for the application disclosed. Full-scale testing and end product performance are the responsibility of the user. Sinclair and Rush Limited shall not be liable for and the customer assumes all risk and liability of any use or handling of any material beyond Sinclair and Rush Limited's direct control. Sinclair and Rush Limited MAKES NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. Nothing contained herein is to be considered as permission, recommendations, nor as an inducement to practice any patented invention without permission of the patent owner.



Product information



Global Manufacturer of Plastic, Rubber & Foam Components

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Values 3)

1020

0.07

0.07

Typical values for uncoloured product at 23 °C ¹)
Properties
Density Water absorption, equilibrium in water at 23°C
Moisture absorption, equilibrium 23°C/50% r.h.

Processing			
Processing: Injection moulding (M), Extrusion (E), Blow moulding (B) Melt volume-flow rate MVR 200 °C/5 kg Melt temperature, injection moulding Mould temperature, injection moulding	- ISO 1133 - -	- cm³/10min °C °C °C	M 16 180 – 250 30 - 50

Test Method²)

ISO 1183

Similar to ISO 62

Similar to ISO 62

Unit

kg/m³

%

%

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

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

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Typical values for uncoloured product at 23 °C ¹)	Test Method ²)	Unit	Values 3)
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@sinclairrush.co.uk

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