

Technical data sheet

SMC LS 3681 CL1

SMC LS 3681 CL1 is a sheet moulding compound based on an unsaturated polyester resin, fire retardant grade, halogen-free, reinforced with glass fibres. This SMC has been developed for railway applications. Good mechanical properties and good fire protection grade are combined into the **SMC LS 3681 CL1**.

SMC LS 3681 CL1 complies with UNI CEI 11170-3 CL1A and electrical applications UNI CEI 11170-3 LR4 . **SMC LS 3681 CL1** is formulated according to RoHS, REAC regulation (SVHC) and WEEE European legislation.

Material code ISO 11469 >UP-(MD+GF)70FR(60)<

Typical material properties

CHARACTERISTICS	METHOD	UNIT	VALUE
Quantity of glass	ISO 11667	%	25
Linear shrinkage	ISO 2577	%	0,0
Density	ISO 1183	g/cm ³	1,8
Water absorption	ISO 62 Met. 1	%	≤0,2
Flexural strength	ISO 14125A	MPa	150
Flexural modulus	ISO 14125A	MPa	9.500
Impact strength (Charpy)	ISO 179	KJ/m ²	70
Rockwell hardness	ISO 2039-2	HRm	80
Heat distortion temperature HDT	ISO 75	°C	≥200
Surface resistivity	IEC 93	Ω	10 ¹⁴
Volume resistivity	IEC 93	Ω mm	10 ¹⁴
Arc resistance	ASTM D 495	s	≥180
Ignitability to direct impingement of flame	ISO 11925-2	30 s	Fs≤150 mm
Reaction to fire	UNI CEI 11170-3	Class	1 A
Tossicity Index	NF F 16-101	ITC	< 20
Smoke index	NF F 16-101	Class	F1

Properties were determined on compression-moulded specimens according UNIPLAST rules project 412 and 413



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Storage and processing conditions

Storage	at 15-25°C, in dry ambient and out of direct sun light
Moulding time	40 s/mm
Moulding pressure	70 - 110 bar
Moulding temperature	140 - 160°C

Note: The information contained in this sheet is correct and accurate and it based on our technical and scientific knowledge and on literature at the date of going to press. Such information relates only to use of the products in the pure state and for the purposes stated herein. Nothing stated here may be taken or construed as implying of any existing patents. Nor is any warranty, whether explicit or implicit, given with regard to results to be obtained through the use of the aforesaid information.

