

# Vyncolit® SI 9045C

Silicone

Vyncolit N.V.

## Message:

SI 9045C is a long fiberglass and graphite filled silicone molding compound, which offers moderate strength properties, high impact resistance, and excellent long-term thermal stability at elevated temperatures.

General Information	
Filler / Reinforcement	Glass \graphite
Features	Impact resistance, high
	Good electrical performance
	Good strength
	Thermal stability, good
Uses	Electronic insulation
	Military application
	Connector
Appearance	Black
Forms	flake
Processing Method	Resin transfer molding
	Compression molding
	Injection molding

Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.95	g/cm <sup>3</sup>	ASTM D792
Molding Shrinkage - Flow (Compression Molded)	0.10 - 0.20	%	ASTM D955
Water Absorption (23°C, 24 hr)	0.25	%	ASTM D570
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (M-Scale)	90		ASTM D785
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength (Break)	17.0	MPa	ASTM D638
Flexural Modulus	11000	MPa	ASTM D790
Flexural Strength (Break)	52.0	MPa	ASTM D790
Compressive Strength	55.0	MPa	ASTM D695
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (Compression Molded)	210	J/m	ASTM D256
Thermal	Nominal Value	Unit	Test Method

Deflection Temperature Under Load (1.8 MPa, Unannealed)	282	°C	ASTM D648
Injection	Nominal Value	Unit	
Middle Temperature	71.1 - 82.2	°C	
Nozzle Temperature	82.2 - 93.3	°C	
Processing (Melt) Temp	93.3	°C	
Mold Temperature	132 - 154	°C	
Injection Pressure	41.4 - 82.7	MPa	
Holding Pressure	20.7 - 41.4	MPa	
Back Pressure	0.345	MPa	
Injection instructions			

Cure Time, 0.125 in: 45 sec All ASTM properties listed were tested in accordance with ASTM D5948. Water Absorption, ASTM D570, 48 hrs, 50°C: 0.45% DTUL @264psi - Unannealed, ASTM D648, Post Baked, Compression Molded: >282°C Compression and Transfer Molding Conditions:  
Preheat Temperature: 180 to 200 °F  
Mold Temperature: 280 to 300 °F  
Compression Mold Pressure: 2000 to 8000 psi  
Transfer Mold Pressure: 4000 to 8000 psi  
Cure Time, 0.125 in: 180 sec

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