

LSR 75A EMI

Elect Nano LSR 75A EMI is an EMI shielding grade of injection moldable two-part liquid silicone rubber (LSR). This material utilizes Elect Nano’s patented discrete carbon nanotube technology (dCNT) to achieve superior broadband electromagnetic shielding performance especially at Extremely High Frequency (EHF) millimeter wave bands. Other benefits include high and low temperature flexibility, and low optical reflectance. Applications include molded EMI gaskets, gap pads, connectors, over-molded inserts, and electronic component encapsulation.

	Test Method	Unit	Values
Physical Properties			
Density	ASTM D792	g/cm ³	1.08
Color			Black
Mechanical Properties			
Shore Hardness	ASTM D2240	Shore A	75A
Tensile Strength	ASTM D638	MPa	11.2
Tensile Elongation at Break	ASTM D638	%	80
Thermal			
Coefficient of Thermal Expansion	ASTM E831	ppm/°C	275
Outgassing TML	ASTM E595	%	TBD
Outgassing CVCM	ASTM E595	%	TBD
Outgassing WVR	ASTM E595	%	TBD
Electrical			
Shielding Effectiveness Absorption	@ 27.5 GHz	dB/cm	27.7
Shielding Effectiveness Reflection	@ 27.5 GHz	dB/cm	3.4
Shielding Effectiveness Total	@ 27.5 GHz	dB/cm	31.1

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Processing Guidelines

Elect Nano LSR 75A EMI is a two-part, heat-curable resin requiring thorough 1:1 mixing of Parts A and B for optimal curing and properties, with de-airing suggested for air-sensitive applications. Dedicated dosing and mixing equipment is recommended to avoid cross-contamination when switching from standard LSR. These silicones process at lower pressures due to their lower viscosity, yet maintain flow properties when heated in the mold. Post-curing at 150°C for 1-2 hours enhances physical characteristics. Care should be taken to avoid contact with curing-inhibiting chemicals, such as organo-tins or sulfur compounds, as these may prevent proper curing.

EMI Shielding Data

