

Wector® RSR03-200

RSR SERIES HIGH-FREQUENCY MICROWAVE ABSORBING MATERIALS

Developed by Wave-Vector New Materials, the RSR03-200 microwave absorbing material adopts innovative silicone-based substrate technology, combined with self-developed soft magnetic particles and special additives to form an elastomer absorbing material with high loss characteristics.

Designed for an operating frequency range of 2 GHz to 4 GHz, it meets extensive requirements for noise/sidelobe suppression and resonance elimination in communications, millimeter-wave radar and other applications.

Product Features & Advantages

- **Ultra-thin Design:** The ultra-thin thickness of the RSR03-200 series provides space-efficient solutions for modern electronic devices.
- **Excellent Flexibility:** Enables adaptation to various complex surfaces and shapes for easy installation and application.
- **High-loss Performance:** Outstanding electromagnetic wave suppression and absorption effectively reduce signal interference.
- **Electrical Insulation & Safety:** Ensures safe and stable performance during service.
- **High-temperature Resistance & Low Volatility:** Maintains performance under extreme environments to extend service life.
- **Halogen-free & Eco-friendly:** Compliant with EU RoHS, REACH and other regulatory requirements.

Typical Applications

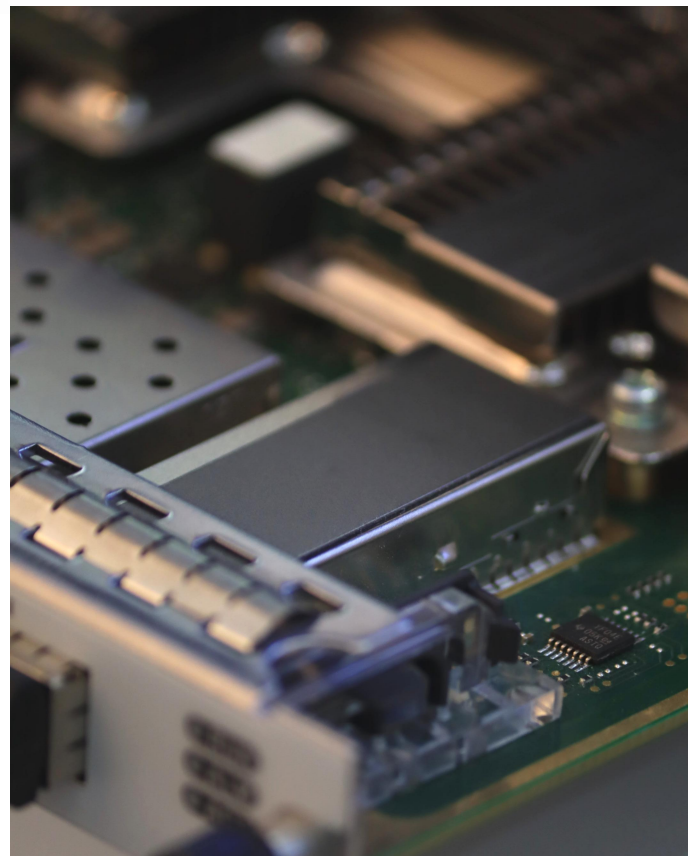
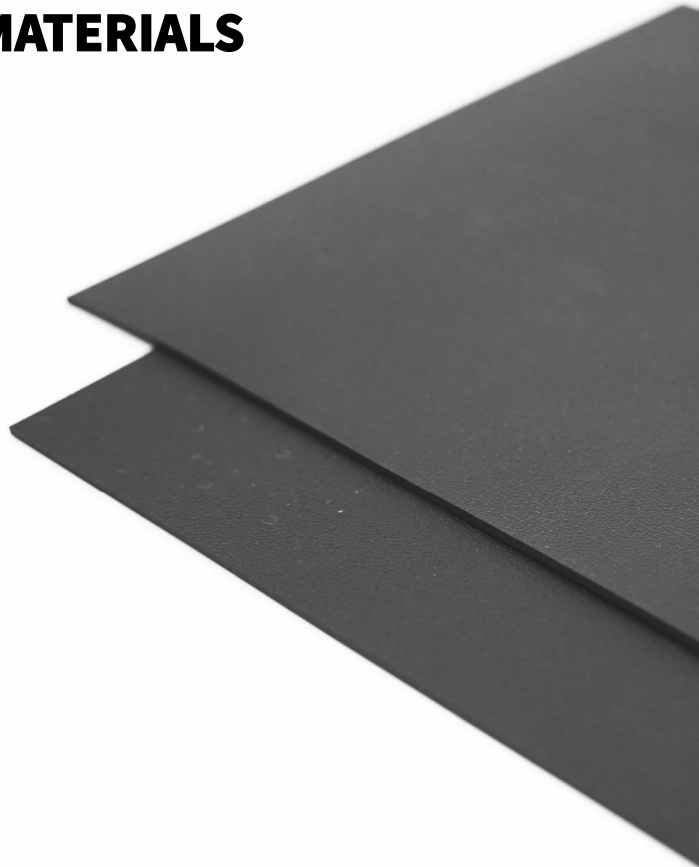
- **Free-space Reflection Reduction:** When applied to metal surfaces, RSR03-200 significantly attenuates electromagnetic wave reflections caused by metal objects or structures, optimizing electromagnetic environments and improving signal transmission quality.
- **Cavity Resonance Suppression:** Attached inside conductive cavities, it effectively suppresses resonance induced by higher-order harmonics to ensure stable circuit operation under various working conditions.
- **Surface Traveling-wave Reduction:** Delivers high-efficiency absorption of surface traveling waves propagating along transmission lines, equivalent transmission lines or conductor surfaces, reducing signal loss and enhancing transmission efficiency.

Transportation & Storage

- Store in a well-ventilated, cool and dry area away from open flames. Storage temperature: 24–27 °C; relative humidity: 40–60%.
- Non-toxic product, stored and transported as non-hazardous goods.

Product Specifications

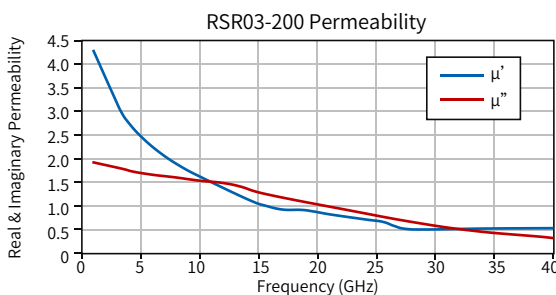
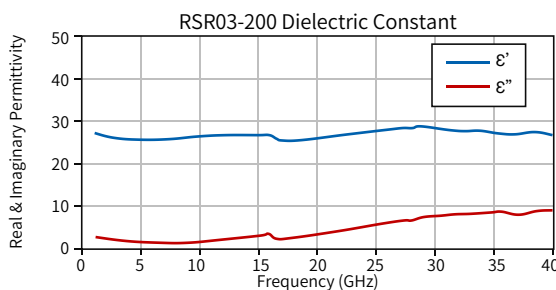
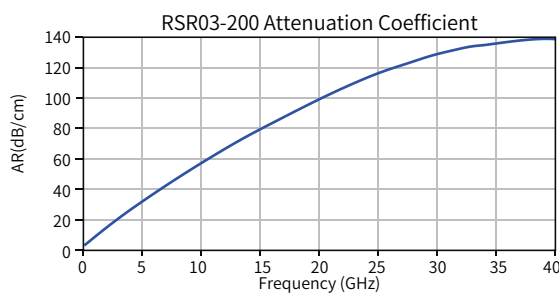
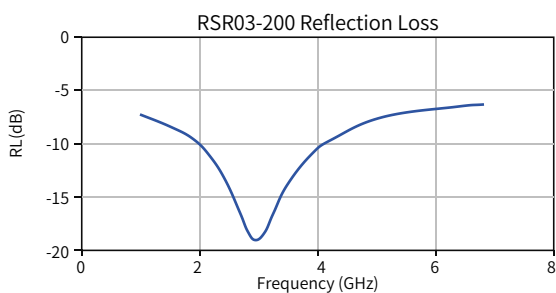
- Standard dimension: 300 mm × 300 mm
- Die-cut shapes customizable per customer requirements



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Item	Unit	Testing Standard	Parameter
Operating frequency	GHz	GJB2038A	2-4
Appearance	/	Visual	Grey
Thickness	mm	Thickness Gauge	2.0
Hardness	Shore A	ASTM D2240	>80
Density	g.cm ⁻³	ASTM D 297	4.6
Volume resistance	Ω.cm	ASTM D257	10 ⁵
Tensile strength	MPa	ASTM D412	≥2.5
Elongation at break	%	ASTM D412	≥40
Flame retardancy	/	UL94	V0
Volatility (TML)	%	ASTM E595-07	<0.5
Volatility (CVCM)	%	ASTM E595-07	<0.1
Operating temperature range	°C	Internal testing	-40-170



Selection Guide

RSR 03 - 200 00N - 300

- ① ② ③ ④ ⑤

- ① RSR: Silicone rubber absorbing material;
- ② Center frequency: 03=3GHz;
- ③ Thickness: 100=1mm;
- ④ Adhesive: 00N=No adhesive, 01P=0.01 film;
- ⑤ Width: 150=150mm, 300=300mm.