

Electromagnetic Noise Absorbent Gel

λ GEL™ RE

◆ Lambda Gel/RE◆

Minimizing EMI noise in new all-in-one solution for electromagnetic noise, heat and shock.



λ GEL™

Discover Softness.

GELTEC

www.geltec.co.jp/english

About **RE series**

- ◆ **RE Series** sheets have both electromagnetic noise absorbent and thermal conductive characteristics.
- ◆ **RE Series** sheets adhere to rough surface with its softness, and shows excellent heat dissipation and electromagnetic absorbing performance.
- ◆ **RE Series** sheets are good electrical insulators and are flame retardant.
- ◆ **RE Series** sheets are usable over a wide range of temperature range.
- ◆ **RE Series** cover most applications. Choose the best one that fits your needs. See "Application" on the last page of this brochure.
- ◆ **REP-100** is very soft paste-type gel, having the same performance as **RE-100** in EMI absorption.

Specifications

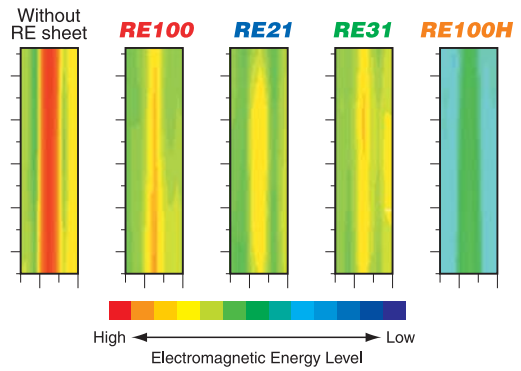
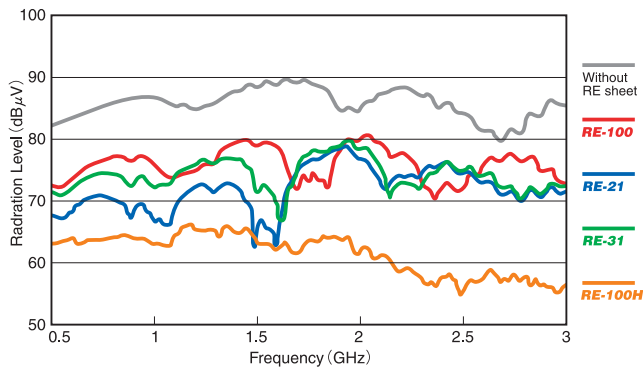
Item		Sheet-type				Paste-type	Remark
		RE-100	RE-100H	RE-21	RE-31	REP-100	
Thermal conductivity (W/m·K)	Our tests	2.0	2.0	1.0	1.5	1.0	—
	Hot Wire Method ^{※1}	1.0	1.0	0.6	0.9	0.6	JIS R 2618
Appearance		Black	Black	Gray	Gray	Black	—
Logo Color		Blue	Silver	Blue	Gold	—	—
Specific gravity		2.9	2.9	2.7	2.8	2.9	JIS K 6249
Hardness (Needle penetration·1/10mm)		60	60	50	40	60	JIS K 2207
Specific volume resistance ratio (Ω·cm)		2×10 ¹¹	2×10 ¹¹	1×10 ⁶	1×10 ⁷	2.0×10 ¹¹	JIS K 6249
Dielectric breakdown voltage (kV/mm)		4.5	10.0	1.0	1.0	4.0	JIS K 6249
Low molecular weight siloxane level ΣD4-10 (ppm)	Solvent extraction method	Less than 300	Less than 300	Less than 300	Less than 300	Less than 300	—
	Head space Method ^{※2}	Less than 1	Less than 1	Less than 1	Less than 1	Less than 1	—
Flame retardance		V-1 (0.5~2mmt) V-0 (3.0mmt~)	V-1 (0.5~2mmt) V-0 (3.0mmt~)	V-1 Equivalent	V-1 Equivalent	—	UL94
Temperature range (°C)		-40~150°C	-40~120°C	-40~120°C	-40~120°C	-40~150°C	—
Other Specification		—	w/Reflective layer and adhesive tape	w/Adhesive tape and PET film	w/Adhesive tape and PET film	Paste	—



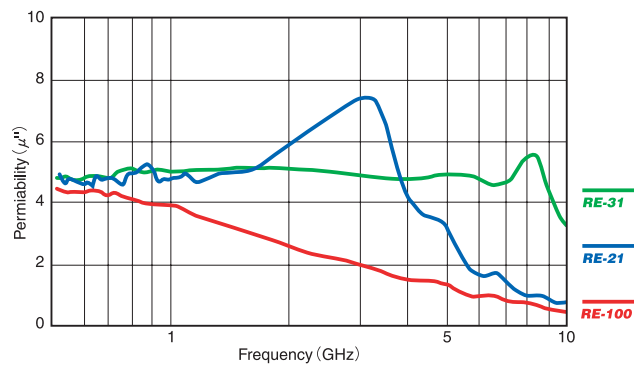
※1 Hot Wire Method : Using the QTM -500 Quick Thermal Conductivity Meter, from Kyoto Electronics Manufacturing Co.LTD.

※2 Head Space Method : at 70°C

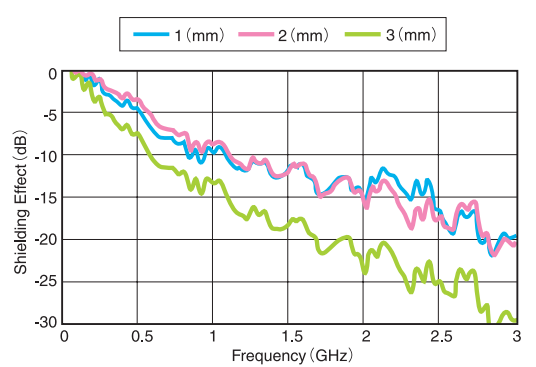
Electromagnetic Noise Absorption <Microstripline 0.5~3GHz sheet = t1.0mm>



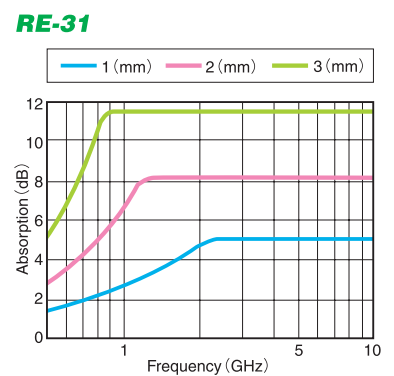
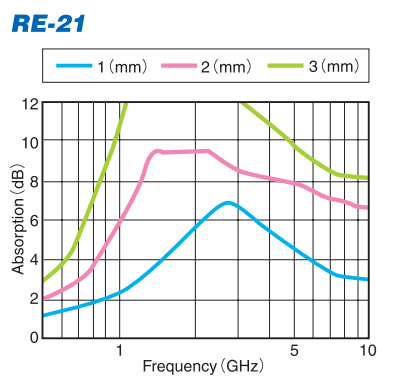
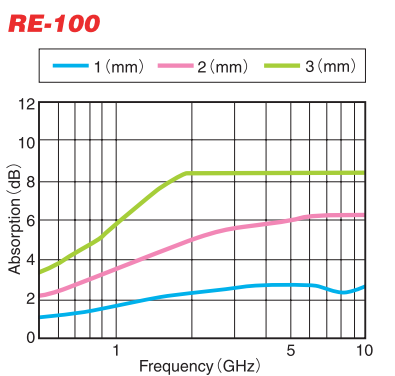
Electromagnetic Noise Absorption : RE-100, RE-21, RE-31



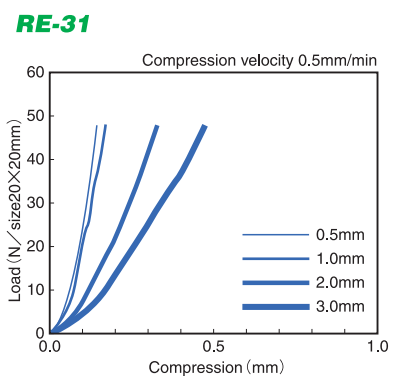
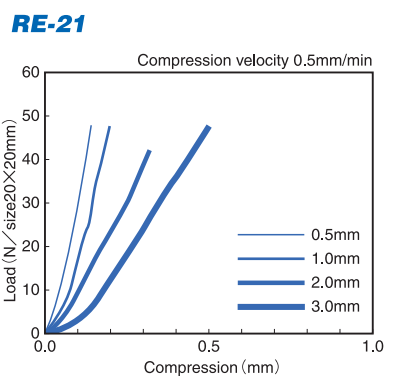
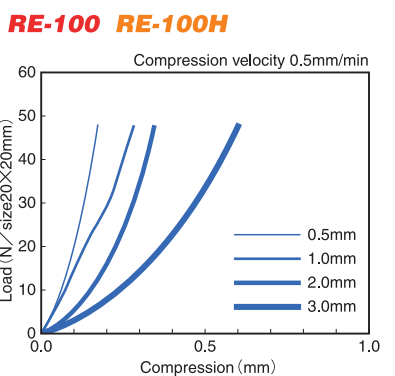
Shielding Effect : RE-100H



Return Loss : RE-100, RE-21, RE-31



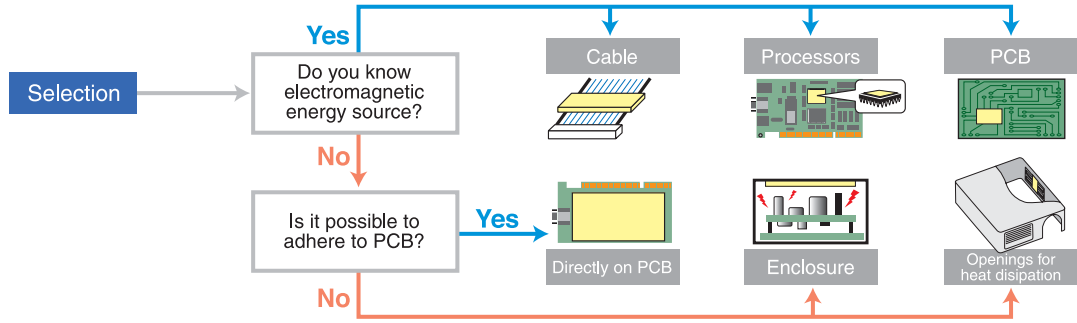
Compression



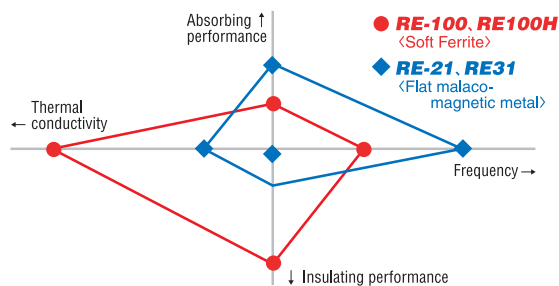
Application

Choose the product depending on application and purpose.

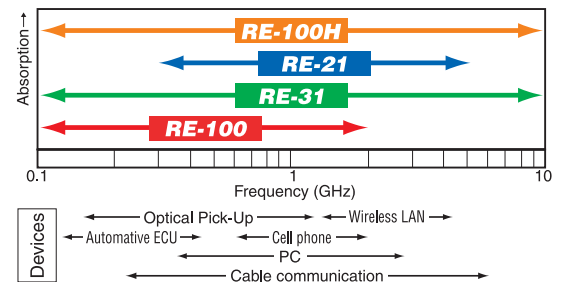
【Guideline】



【Product mapping】

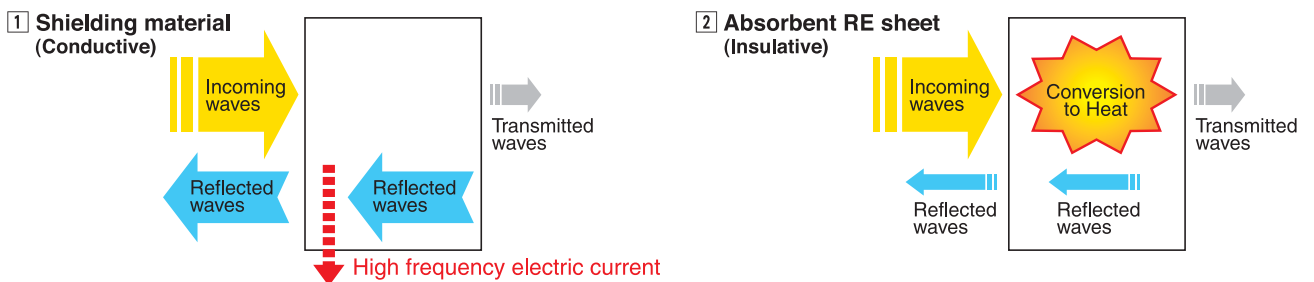


【Frequency range】



Mechanism

Comparison between the traditional shielding materials and absorbent RE materials:



In either case, transmitted waves can be minimized, but most electromagnetic energy is reflected and stay inside in case of shielding materials unless it is grounded. With the absorbent RE materials, it is absorbed and converted into heat, and therefore interference can be minimized. Also, the absorbent RE materials are insulative while shielding materials are conductive.

Delivery format

【Basic specifications】

Sheet size	400mm×400mm	300mm×400mm
Sheet thickness	0.5, 1.0mm	2.0, 3.0mm

【Custom products】

RE sheets can be tailored for the application by a custom sheet size, thickness, tackiness of the surface, or the kinds of separator films.



Note

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