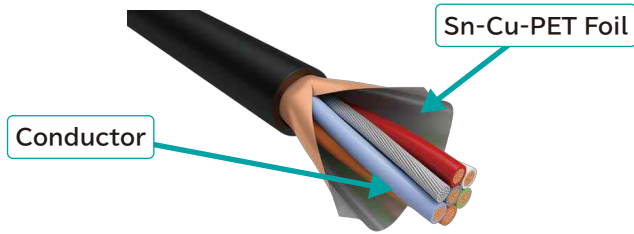


Copper Foil for Electromagnetic Shielding

 **JX Nippon Mining & Metals Corporation**

Sn-Cu-PET Foil for Electromagnetic Shielding

Application Examples



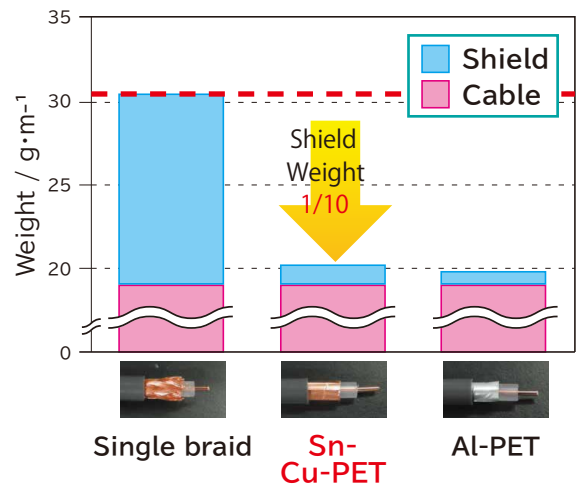
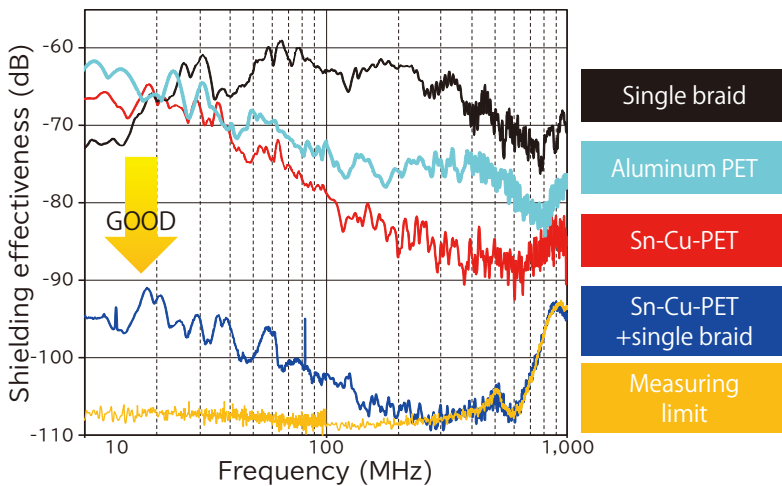
Wiring Cable



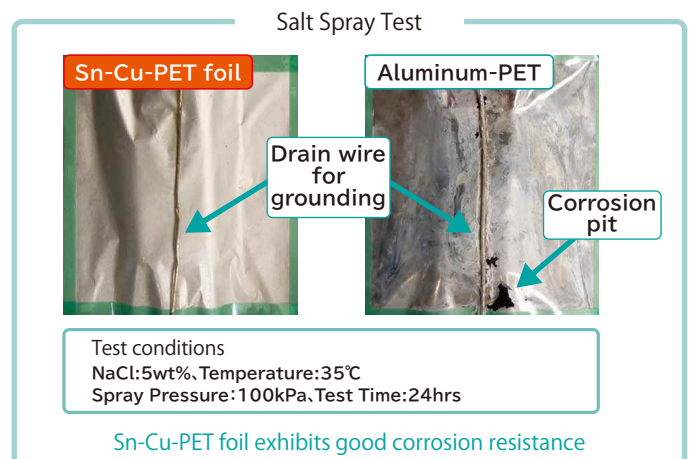
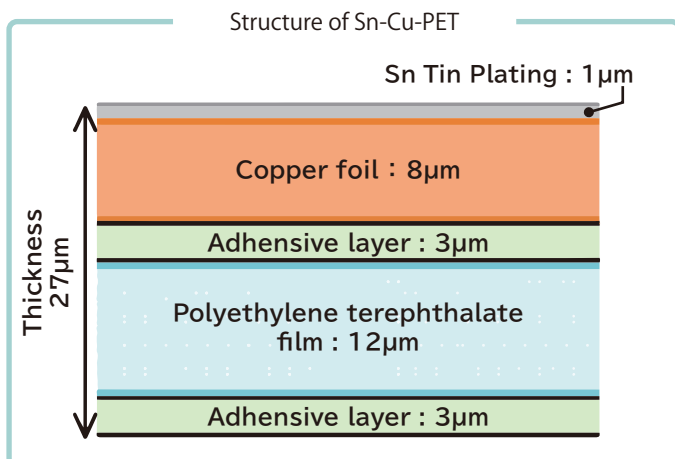
Automobile

Merits for Customers

- Sn-Cu-PET foil demonstrates excellent shielding effects in a wide range of electromagnetic radiation frequencies.
- Sn-Cu-PET foil can reduce shielding material weight to approx. 1/10 that of braid shield.
- Sn-Cu-PET foil has excellent resistance to heat and corrosion, so it can be used in various environments.

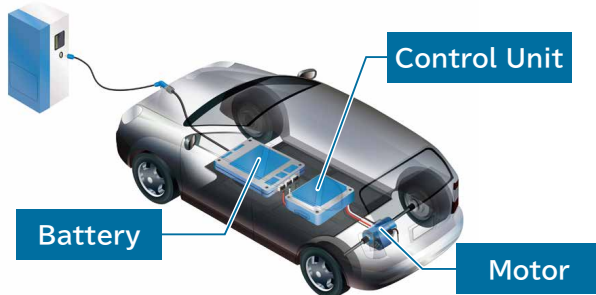


Features of Sn-Cu-PET Foil



3D-formable Sheets for Electromagnetic Shielding

Application Examples



- Shielding of noise generated from parts (batteries, control devices, motors) and charging equipment mounted in Automobile such as electric vehicles.
- Prevents malfunction of various sensors caused by external low-frequency noise.

Merits for Customers

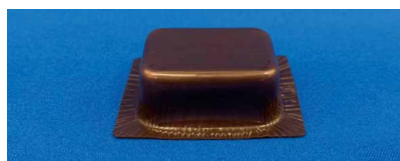
- A very lightweight shield sheet composed of copper foil and resin film.
- Demonstrates excellent electromagnetic shielding effect in a wide range of frequencies.
- Can be molded into various shapes and cover the entire noise source without gaps.
- Several kinds of resin films can be chosen according to the application.

Shield Sheet



Size : 150W×150D×0.4T (mm)

3D Molding Examples



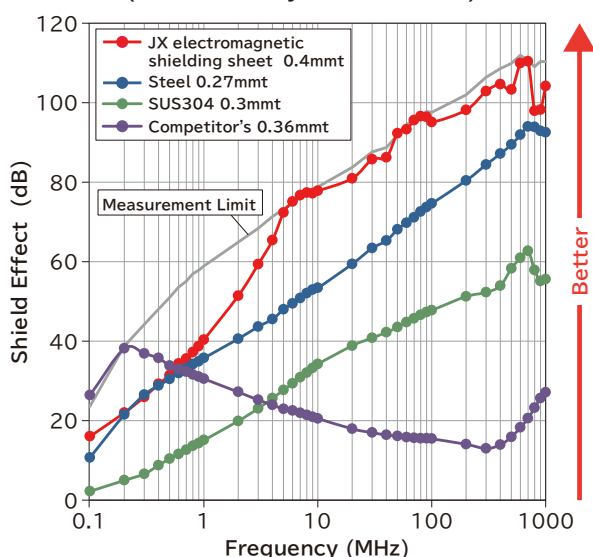
Size : 40W×30D×20H (mm)
Corner shape : R3mm



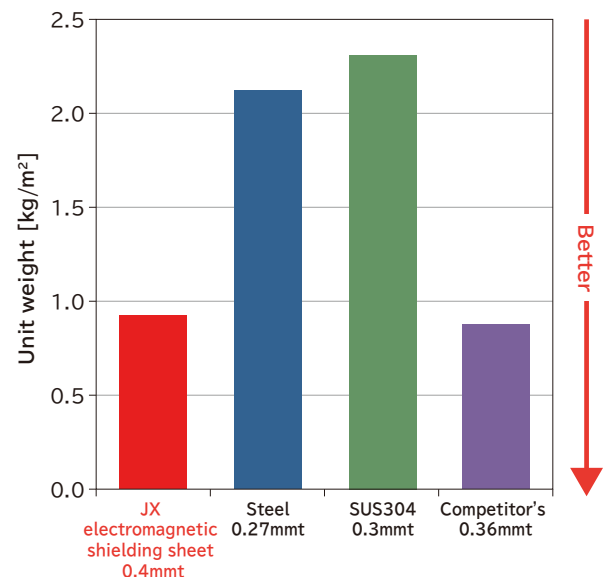
Size : 30φ×20H(mm)

Features of Electromagnetic Shield Sheet

- Exhibits magnetic field shielding effect of at least 30 dB in the frequency band of 500kHz or more. (Measured by KEC method).



- Very lightweight shield sheet due to resin film and copper foil composition.



Ultra-Thin Copper Foil "JXUT"

Application Examples



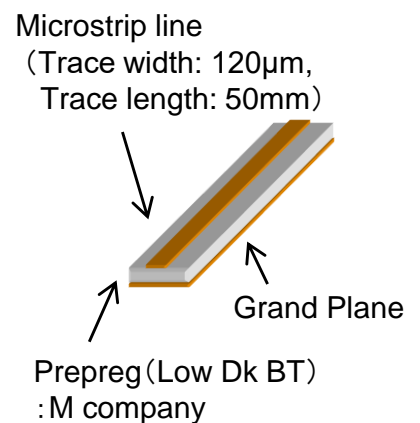
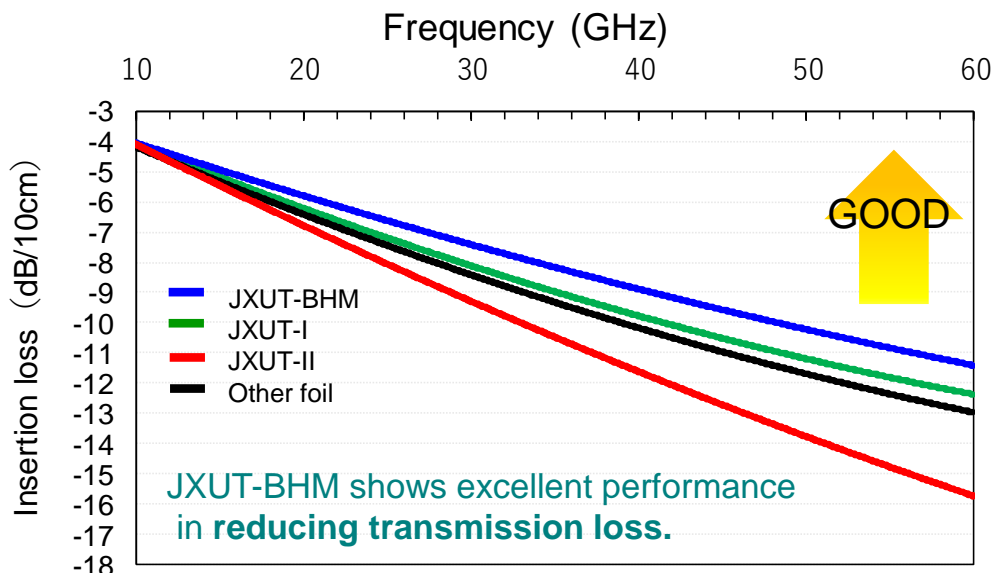
Surface Appearances & Typical Properties

- JXUT-I : Very low profile and suitable for fine line applications.
- JXUT-II : Low profile and strong peel strength for high reliability applications.
- JXUT-BHM : Ultra fine nodules with magnetic-less treatment for 5G applications.

	JXUT-I	JXUT-II	JXUT-BHM
Thickness(μm)*	1.5, 2, 3	2, 3, 5	1.5, 2, 3
Matte Side Rz (μm)**	1.2	1.5	1.1
Nodule image			
SEM of nodules (x6k)			
Targeted L/S	20/20 μm	25/25 μm	15/15 μm
Supply Form	Roll (width :100mm~1300mm) or sheet		

* $<1\mu\text{m}$ thickness is subject to R&D **Measurement method : Non-contact

Transmission Loss



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