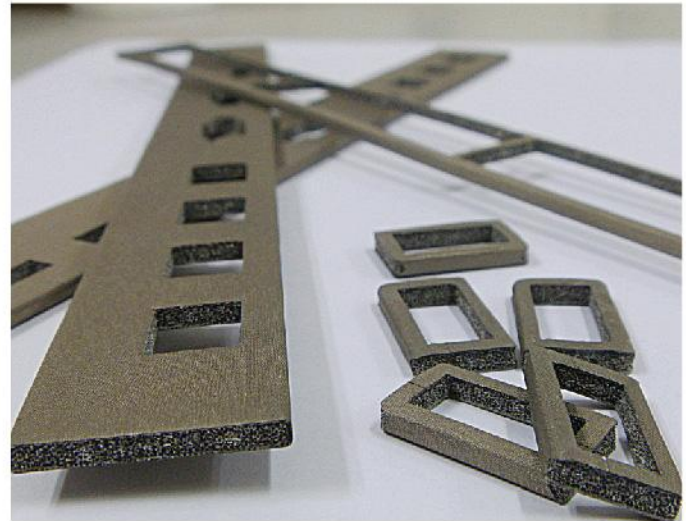


THE RIGHT SHIELDING PRODUCT FOR ETHERNET NETWORK APPLICATIONS

Ethernet Network equipment must comply with international radiated emission and susceptibility. Under specific conditions, FCC part 15 (US) imposes to such equipment tests up to 40 GHz. Most of unwanted emissions are common mode noises from the chassis ground plane or from unbalanced differential signal path and their containment require from shielding materials to provide a low impedance path despite the high frequency. In the meantime, Ethernet electronics are sensitive to electrostatic discharge (ESD) and must resist to test voltage as high as 15 Kv (IEC 61000-4-2) .In this instance, same shielding materials must also feature a very low impedance/resistance at very low frequency so to ensure a uniform flow of the high current induced in the chassis.

Schlegel Electronic Materials (SEM) introduces ORS-II, a new series of gaskets specially designed for broadband applications. By combining its famous nickel copper plated conductive foam and its high-end nickel copper C12 flexible fabric cladding, ORS-II offers minimal surface resistance to achieve superior grounding and shielding results at low frequencies. By offering excellent Z-conductivity for shortened current paths, ORS-II ensures as well, substantial shielding performance at high frequencies.



ORS-II is available in a variety of thicknesses, which are die-cut to customer specifications, for a durable highly conductive product in all X-Y-Z axis. In addition, shielding efficiency is achieved with less sensitivity to compression variances than other traditional shielding products. ORS-II is available with a UL94-VO flammability rating and complies with RoHS European Directive and SVHC Policy (REACH).

All these combined features in one product, makes ORS-II a great engineering solution when addressing shielding challenges in broadband applications.

ORS-II is available in a multitude of geometries and in varying thicknesses. ORS-II is recommended for all combinations of Ethernet connectors, and is particularly effective in lower frequencies where ESD is of concern and is far more effective than standard conductive foam when superior grounding is important.

schlegelemi.com

electromagnetic
interference
shielding products

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TECHNICAL SPECIFICATIONS

Shielding Effectiveness 0.1-40 GHz	See Graph	Stripline method (IEEE std 1302)
Operation Temperature	-40°F +156°F (-40°C +70°C)	
Flammability	UL94 V0	UL94
Surface Resistivity	<0.02 Ohm/sq. : NiCu-C12 <0.08 Ohm/sq. : NiCu-C22	SEM LP 3004
Contact Resistance (@1Kg load)	<0.11 Ohm-inch: NiCu-C12 <0.20 Ohm-inch: NiCu-C22	SEM LP 3001
Abrasion Resistance	1.000.000 cycles	ASTM D3886
Thicknesses (mm)	1.00,1.50,2.30,3.40,5.00	

ORS-II Part Number Guideline:

CC3EXXXX - ORS II

CC3E: Die-cut according to customer drawing

XXXX: Sequence number

Shielding effectiveness of ORS-II versus current shielding materials

