

Schlegel Electronic Materials (SEM) C12 EMI gaskets provide premium performance for demanding telecommunication, optical, mainframe, and supercomputer applications. SEM C12 gaskets are designed with Nickel-Copper cladding. SEM C12 cladding resists fracturing, thus providing reliable high-frequency shielding performance. SEM C12 gaskets are designed for high temperature applications and offer superior current-carrying performance for improved ESD and EMP protection.

100% RoHS Compliant

Schlegel Electronic Materials products are marketed around the world. As such we are committed to comply with the European Union Directive 2002/95/EC (RoHS). SEM products and materials have been tested by approved third party facilities and found to be in full compliance with the RoHS threshold limits for Level A and Level B substances.

The "New" Schlegel Electronic Materials

As the originator of the fabric-clad foam EMI shielding technology, Schlegel Electronic Materials is the industry's most trusted name. SEM continues to set the standard for quality and innovation, designing advanced solutions for a wide range of applications. And our worldwide locations ensure that you get what you need - when and where you need it. From concept to production, the SEM complete portfolio of shielding products combines highly conductive materials with flexible foams and coatings to provide the latest electronic materials containment solutions.



Schlegel Electronic Materials objective is to ensure that its customers have a competitive edge - by offering the highest quality and most cost-effective products conveyed with the highest level of customer service.

schlegelemi.com

electromagnetic
interference
shielding products

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Specifications - Nickel-Copper C12

Nickel-Copper C12 Specifications

SEM's uniquely designed NiCu C12 gaskets are designed to provide maximum shielding effectiveness, environmental durability, and abrasion resistance. C12 cladding is ideal for high-frequency shielding, due to its unique design: copper topped by nickel, plated to a polyester woven substrate. Because they experience significantly less fracturing than other nickel-plated gaskets, SEM C12 gaskets maintain high-frequency performance in situations where shielding above 97 dB is required. The exclusive acrylic-based C12 coating provides improved galvanic compatibility with a wide range of materials.

Material Specifications:

Cladding: Nickel/Copper C12 (polyester plain weave)
Surface Resistivity: $\leq 0.02 \Omega/\square$ and $CpK \geq 2.0$

Shielding Effectiveness:

Shielding performance of 1/4" x 3/8" gasket per MIL-G-83528B in frequencies of 20 MHz to 10 GHz: **97.4 dB** (average)

Note: Gasket geometry and application determine actual shielding effectiveness

Contact Resistance (SEM LP-3001): 0.08 Ω -inch at 1 Kg load/inch

Abrasion Resistance (ASTM D3884):

No change in surface resistivity: 1,000 cycles

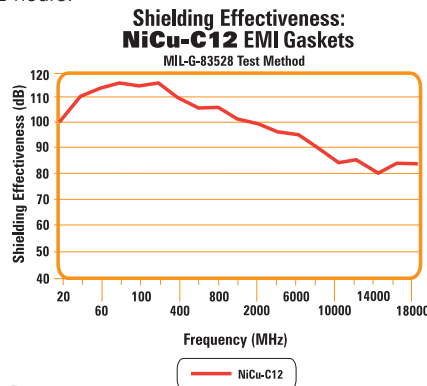
Foam Specifications

All C12 products are constructed with SEM's unsurpassed, industry leading polyurethane foam core technology. Within the C12 cladding you can select from the following options:

- Standard, highly resilient UL 94-HB recognized foam
- Bromine-free flame retardant UL 94-VO recognized foam

Compression Set:

The core of SEM shielding gaskets is open-celled polyether polyurethane foam in a high-resiliency (HB) formula. Compression set of foam that is encapsulated is 1% at ambient temperature, and <5% at 70°C (158°F) when compressed 50% for 22 hours.



Fabric-Over-Foam Gaskets

Schlegel Electronic Materials offers over 200 different profiles to meet all of your shielding needs. From standard rectangular to C-fold, D-shape, L-shape, P-shape, and others – SEM will design the ideal shielding gasket to meet your needs.