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Microporous Copper Foam as Powerful Heat Sink

Coraopolis, PA ... April 13, 2015 ... Goodfellow offers a new copper foam with pore sizes between 300 and 600 µm and a relative density of around 37%, providing a much higher surface area than traditional copper foams. This microporous material is expected to be of particular interest to design engineers working in fields requiring heat exchange.

Microporous copper foam is unique in that it is produced by means of a lost carbonate sintering process. Pure copper powder is mixed with a carbonate powder, compacted and sintered. This forms a matrix of copper ligaments, in between which is the carbonate powder. After cooling, the carbonate is dissolved away in water and recycled or decomposed using heat. The resulting structure is regular and uniform throughout, giving a rigid, highly porous and permeable structure with a controlled density of metal per unit volume.

New microporous copper foam, with a relative density of around 37% and a very large surface area, is a powerful heat sink.

Applications of microporous copper foam include, but are not limited to:
- Liquid cooling
- Air cooling
- Heat exchangers
- Board-level electronics cooling
- Power electronics
- EMI shielding.

Goodfellow supplies microporous copper foam as disks and sheets ranging in thickness from 4 to 10 mm. Other thicknesses may be available upon request.

For more information about microporous copper foam from Goodfellow, call 1-800-821-2870, email info@goodfellowusa.com or visit the online Goodfellow Catalog at goodfellowusa.com.

About Goodfellow
Goodfellow is a leading supplier of metals, polymers, ceramics and other materials to meet the needs of science and industry worldwide. The company specializes in supplying small quantities (a few grams to a few kilos) of metals and materials for research, prototype development and specialized manufacturing applications. Standard products can be found online at the comprehensive Goodfellow Catalog (www.goodfellowusa.com). In addition, Goodfellow is often able to supply larger quantities of metals and materials or items manufactured to specific requirements.