

SComP™

USE GREEN TECHNOLOGY IN YOUR ENERGY-ABSORBING APPLICATIONS

SComP™ Syntactic Composites

SComP™ is a family of structural syntactic metal composites with superior strength-to-weight ratios, better formability, and lower cost compared to honeycomb and integrally stiffened panel alternatives. SComP™ materials have a structure closely approximating that of bone or wood, and have exceptional strength-to-weight ratios and energy absorption capabilities.

SComP's™ unique structure is a space-filling array of hollow spheres/microballoons embedded in a metal matrix. These microballoons can be glass, mullite, alumina, SiC, or carbon, depending upon the metal matrix properties desired.

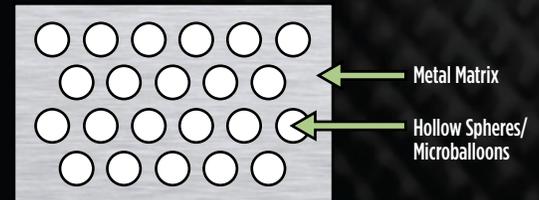
SComP's™ lightweight structural syntactic composite with inherent energy absorbing capability, has many of the same benefits of beryllium without the negative health and safety problems.

Powdermet Uses Green Alternatives To Elements Of Concern.

Powdermet develops, matures, and transitions breakthrough materials innovations that enable reduced weight, resource consumption, environmental footprint and life-cycle costs, while increasing energy-efficiency based on value-creation gained through engineered nano-scale features and hierarchically structures of metal and/or ceramic phases in a structure.

Powdermet's technology is based on the design and production of engineered particle building blocks that incorporate nano- and micro-scale structural features developed into a safe, free-flowing particle delivery system.

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exceptional energy
absorption capabilities



Phone: 216.404.0053 Fax: 216.404.0054
24112 Rockwell Drive, Euclid, OH, 44117

WWW.POWDERMETINC.COM

POWDERMET INC.
CLEAN, GREEN, SUSTAINABLE MATERIALS SOLUTIONS

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Powdermet's SComP™

SComP™ densities are typically 25-75% of the pure metal alloy. Modulus typically ranges from 1/4 to 1/2 that of the parent metal alloy, while mechanical properties can be 50-75% of the parent material. Its high initial crushing strength, makes it ideal in situations where only high-energy threats are of concern, allowing smaller impacts to be deflected with no structural deformation while large threatening impacts will be effectively absorbed.

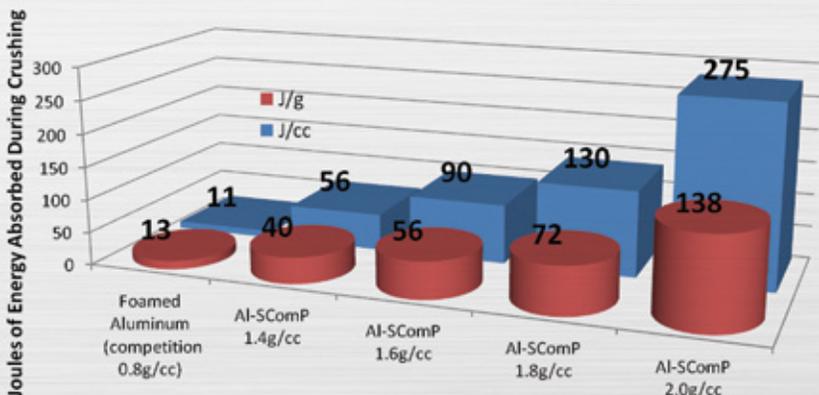
SComP™ materials shine in their ability to absorb high-impact energies whether it is from large body impact, ballistics, blade fragments, or collisions. With more than 20 times the energy absorption per unit volume and 10 times the energy absorption per unit weight than competitive metal foams, SComP™ metallic composites are ready for your impact and ballistic mitigation needs.



The Powdermet Team

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Energy Absorption of SComP™



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