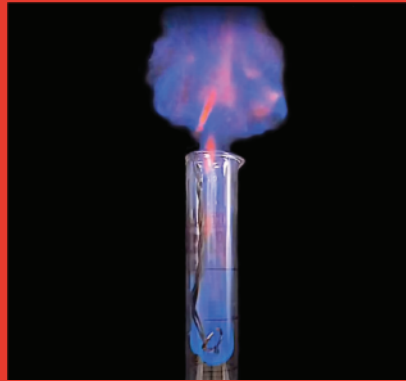


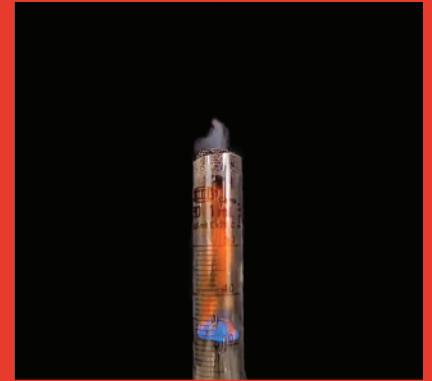
Duocel® flame arrestors prevent flame propagation while allowing gases to vent

Flame arrestors are designed to absorb flames or explosions in order to protect the systems around them.

As a flame is forced through the narrow channels of the flame arrestor, enough heat is lost to the arrestor that the flame cannot sustain itself, and it dies out.



without foam

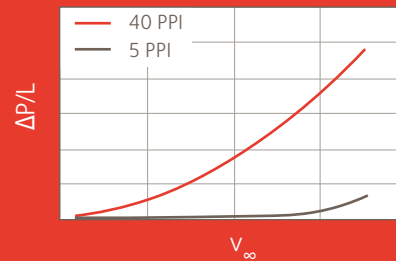


with Duocel® foam

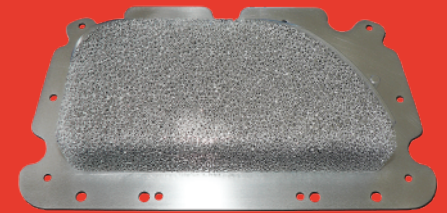
We tailor Duocel® to meet your needs



Integrated housing for easy installation



Controllable pressure drop



Custom shapes

For use in



Vent lines



Battery boxes



Aftermarket aircraft interiors



Electronics boxes

Flight Proven

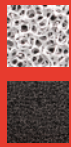
Duocel® flame arrestors are used on the Boeing 777x, Lockheed C-130, and various other missile and commercial aviation platforms.



More About Duocel®

Duocel® is an open-celled rigid foam with solid ligaments and optimized properties for your design.

Base material



Aluminum



Copper

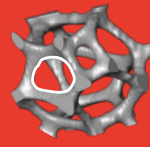


Carbon



Silicon Carbide

Pore Size

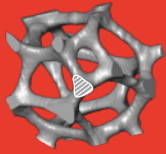


100 PPI
(~0.01")



5 PPI
(~0.20")

Ligament cross-section



3%



6-8%



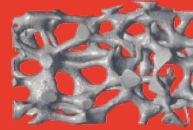
10-12%



15%

Relative Density

Compression



Uncompressed



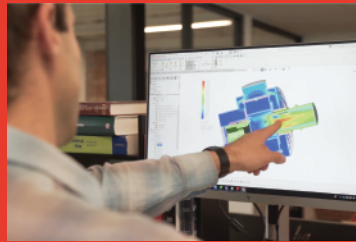
Compressed

ERG Engineering

With over 50 years of expertise designing and manufacturing foam components, we tailor Duocel® to your design for maximum performance.

Design Optimization

- Thermal conductivity
- Crush strength
- Pressure drop
- Surface area
- Operating temperature
- Electrical conductivity
- Corrosion resistance

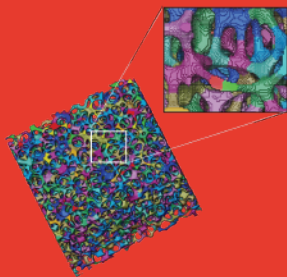


Testing

- Compressive and tensile testing
- Shock and random vibration
- Proof and burst pressure
- Thermal cycling
- microCT scanning
- Single and two-phase heat transfer

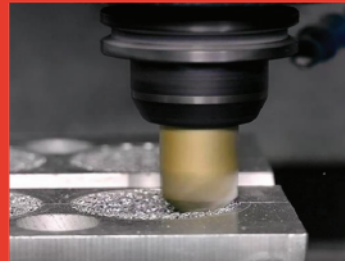


Manufacturing Advantage



Better strength and conductivity

Unlike metal foam produced through other methods, Duocel® has solid ligaments with fully developed grain boundaries.



Flexible fabrication

Duocel® metal foam can be machined, formed, brazed, soldered, anodized, and coated.

Flight Proven

ERG Aerospace produces TRL-9 Duocel® components for various applications, including Mars landers, satellites, and commercial and military aircraft.

- 2019 UTC Supplier Gold
- 2019 Pratt & Whitney Most Innovative Supplier
- 2018 IHI Supplier of the Year
- 2017 Pratt & Whitney Service-Disabled Veteran Owned Supplier of the Year

