

# High performing lightweight hollow shells

## Highly Engineered Hollow Shells

Trelleborg's highly engineered hollow shells, reduce weight in composite or syntactic materials, without compromise. With our unique engineering ability, our highly engineered hollow shells provide alternative options from traditional glass microspheres. Our proprietary processing techniques allow the fabrication of hollow shells made of unconventional materials such as ceramic and metal. Our custom designed and stock hollow shells will increase your design space and allow you to achieve mission critical performance where it counts. Let us help you make your product or material lighter, stronger, more shock absorbent and fire proof.

### Examples of composite / syntactic materials using our hollow shells:

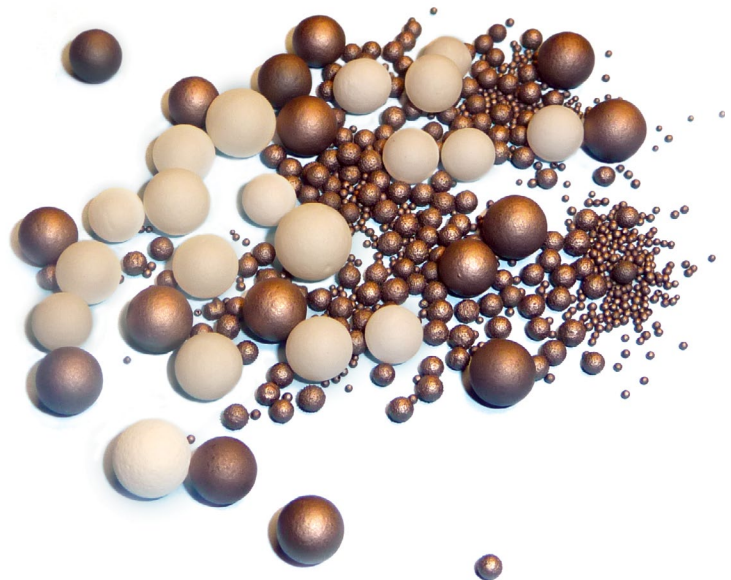
Space equipment

Defense

Buoyancy

Medical

Power generation plants



## Benefits:

- Customizable or standard stock
- Tailored surface finish (rough or smooth)
- Suitable for use at high temperatures, up to 1,600 °C
- Hydrostatic crush strengths over 20KSI
- Lightweight
- Ductility
- Wide range of materials available
- Wide range of shapes
- Wide range of sizes, 0.5mm - 20mm

## Materials for hollow shells:

- Alumina
- Porcelain
- Cordierite
- Yttrium Stabilized Zirconia
- Yttrium Oxide
- Boron Carbide
- Silicon Carbide
- Stainless Steel
- Low Alloy Steel (4140)
- Maraging Steel
- Aluminosilicate

## Shapes for hollow shells:

- Sphere
- Oblate spheroids
- Right circular cylinder
- Right rectangular cylinder
- Right triangular cylinder
- Triangular prisms
- Cones



## Contact Us

Trelleborg's Applied Technologies division is an industry expert in delivering innovative and reliable solutions that maximize performance for our customers. Our vast range of specialized, customizable materials ensure peace of mind at every stage of your project. With reliable and efficient project management and manufacturing we endeavor to take performance to new levels by achieving your goals safely, on time and within scope.



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