



MATERION



**ADVANCED MATERIALS
GROUP**

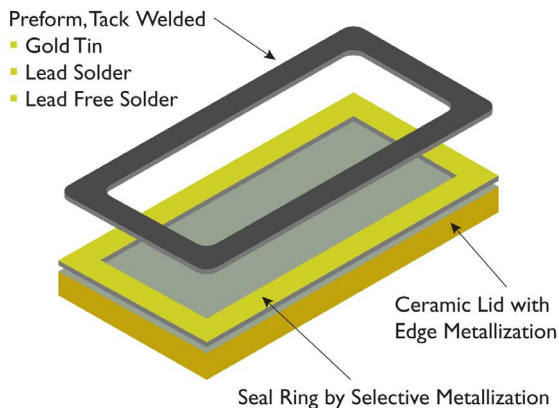
Ceramic
Combo-Lids™

Ceramic Combo-Lid™ Selectively Metalized Seal Ring

The Challenge

To keep pace with rapidly changing technology, customers need durable and reliable packaging materials. Materion Advanced Materials Group produces a broad range of high performance lids to meet your microelectronic packaging requirements.

Materion is the world's leading supplier of hermetic lids for the semiconductor, MEMS, medical, or optical market. Vertically integrated throughout the manufacturing process, we fully leverage our operations in North America, Singapore and the Philippines to bring you best-cost solutions.



BENEFITS

Materion is the industry's cover lid innovator. We are tooled for over 15,000 preform shapes and have the capability to customize and manufacture new Ceramic Combo-Lid™ designs to meet your specific requirements. Our one-stop station tack-welds Gold-Tin, Lead and Lead-free solder preforms onto metalized ceramic lids.

- Our metallization capability creates an effective seal ring that allows excellent soldering
- Gold-Tin alloys provide superior hermetic sealing
- Edge melting provides fillet formation
- Other non-precious and lead-free soldering available
- Offer tack welding service for soldering preforms onto ceramic lids

LIDS FOR EVERY APPLICATION

Our product line encompasses a broad range of lids:

- Combo-Lids™ for high reliability applications
- Micro-Lids™ for packages smaller than .300 in²
- Seam Seal-Lids™ for sealing heat sensitive electronics
- Visi-Lids™ for optical packages
- Non-Magnetic Lids for specialty applications
- Ceramic Lids for specialty applications
- Epoxy-coated ceramic and metal Epo-Lids™

CERAMIC COMBO-LIDS™

Available in variety of shapes, sizes, materials and configurations including:

Lid Material

- Ceramic (Alumina) in various ranges of Al₂O₃

Lid Colour

- Brown, White and Ivory

Lid Shapes

- Square, Rectangle, Flat

Lid Seal Ring Metallization

- Generally Nickel layer followed by Gold layer
- Available with or without metallization