Materion Advanced Chemicals employs a diverse group of chemists, metallurgists and material technologists to develop and manufacture inorganic chemicals and large area coating materials for applications including solar panels, LED products, architectural and automotive glass and specialty thin film coatings.

Phosphor Materials

Materion Advanced Chemicals continues to develop and improve inorganic compounds used in the manufacture of today’s LED phosphor formulations. These specialty inorganic compounds provide the material solution in reaching new levels of luminous output in LED products.

Materion Advanced Chemicals excels at providing laboratory samples with the ability to scale the process to production quantities.

Markets/Applications

Materion provides advanced chemical material solutions to a variety of phosphor formulations utilized in high brightness LEDs found in:

- Backlighting – Flat Screen TVs, Smart Phones and Computer Monitors
- Automotive – Turn Signals, Interior and Exterior Lighting
- Signage – Safety, traffic, displays
- General Illumination – Soft White Light LEDs

Please visit our on-line catalog at www.materion.com/advanced-chemicals to view our complete line of Specialty Inorganic Materials.

Key Manufacturing Capabilities for Phosphor Materials

- Reactive gas processing
- Air and moisture sensitive material manufacturing and processing
- Reactive material handling and packaging
- Customized manufacturing – synthesis, processing and analysis

Materion has the ability to produce challenging air and moisture sensitive materials. We can provide the particle size, purity, and packaging to meet the most stringent material requirements.

Our expertise in working with reactive materials in an air and moisture free environment results in the exceptional quality found in our Alkali Earth and Rare Earth Nitrides and Hydrides.

Material Options Include:

- Alkali Earth Hydrides and Nitrides
  - Barium Hydride (BaH₂)
  - Barium Nitride (Ba₃N₂)
  - Calcium Hydride (CaH₂)
  - Calcium Nitride (Ca₃N₂)
  - Strontium Hydride (SrH₂)
  - Strontium Nitride (Sr₃N₂)

- Rare Earth Nitrides
  - Cerium Nitride (CeN)
  - Europium Nitride (EuN)
  - Gadolinium Nitride (GdN)
  - Lanthanum Nitride (LaN)
  - Ytterbium Nitride (YbN)
  - Yttrium Nitride (YN)