# Alpha Spectra, Inc. Optical Coupling Grease

Alpha Spectra, Inc. offers accessories that can be used with our scintillation detectors. ASI open face and demountable PMT style detectors require premium optical coupling grease. ASI offers only premium optical coupling grease for interfacing the scintillator to the PMT. Premium optical grease ensures that our open face and demountable detectors provide the best possible energy resolution.

### **Features**

- High clarity
- Good light transmission characteristics
- Good low temperature adhesion
- Excellent mechanical shear stability
- Ease of use

## **Properties**

Color: Pale Amber
Evaporation after 24 hours @ 100°C: 1.5%
Evaporation after 24 hours @ 150°C: 3.5%
Specific gravity @ 25°C/15.6°C: 0.976
Index of refraction @ 589nm: 1.4658
Viscosity: Paste
Chemistry: Silicone
Toxicity: Mild irritation to the eye

Table 1 shows the light transmission in per cent for a 10mm interface thickness for various wavelengths.

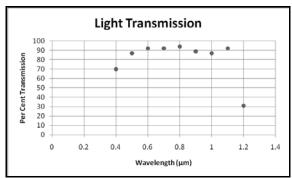


Table 1. ASI optical coupling grease transmission data

### **Application**

Use a metal spatula to smear a small amount of grease near the center of the PMT. Avoid introducing air bubbles into the grease. Gently contact the grease to the detector and press out the grease. While gently pressing out the grease, rotate the PMT back and forth until excess grease appears around the perimeter of the PMT. Wipe the excess material around the interface.

Figures 1 and 2 show examples of ASI detectors that utilize optical coupling grease.



Figure 1. Ultra Low Background Gamma Detectors



Figure 2. Demountable detectors.

#### **Available Sizes**

ASIOPT1 450 gram jar ASIOPT2 100 gram jar

Contact ASI for current prices.

Remember that our detectors have been used in applications that include: Homeland Security, Oil and Gas Exploration, Health Physics Applications, Astrophysics, Medical Imaging, Industrial Gauging, Particle Physics, Material Science, and Ultra-Low Background Counting.

If you have special detector needs, please contact Alpha Spectra, Inc. so that our design team may support your scintillation detector requirements.

Alpha Spectra has manufactured over 100,000 detectors in becoming the world's second largest producer of NaI(Tl) scintillation crystals. We are proud of the manner in which our staff has worked together in developing a technology-based company with world class expertise.

Alpha Spectra, Inc. is the only American-owned company in the industry that has its own purification and growth processes. Our manufacturing process begins with exceptionally clean starting material. This material is processed using a growth technique that has been developed in house. Our high-quality detectors are assembled utilizing techniques that have been developed with over 100 years of combined working experience. Contact Alpha Spectra, Inc. for your scintillation detector requirements and be assured that you will get personal attention.

