

INSULATING MATERIALS

Electrical, Thermal and Acoustical Insulators

ORION professionals are dedicated to the design and production of insulating products that perform. Our Electrical, Thermal and Acoustical insulating solutions are based on extensive experience, innovative research and a thorough knowledge of materials. If you have an insulating application, ORION will provide you with the highest quality, most cost effective solution.

Electrical

We are specialists in selecting the most appropriate material for applications. Design considerations typically include:

- Electrical properties
- Moisture absorption and dimensional stability
- Ease of fabrication and manufacturing tolerances
- UL94 flammability rating and thermal properties
- Adhesive and printing compatibility
- Puncture resistance

Materials commonly selected:

- Polypropylene (Formex®)
- Polyester (Mylar®)
- PBTP (Valox®)
- Polyamide
- Polycarbonate (Lexan®)
- Polyvinyl Chloride (PVC)
- Polyimide (Kapton®)

Thermal

ORION produces a wide range of temperature insulating products custom designed to protect electrical and other sensitive components in the most critical environments.

Insulating solutions are made from a variety of materials which reduce heat transfer from radiation, conduction and convection.

Materials commonly used:

- Solid silicone
- Cellular (sponge) silicone
- Closed cell rubber products
 - Epichlorohydrin (ECH)
 - High temperature polyimide films

Acoustical

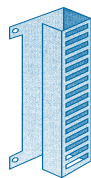
Noise from electronic equipment, computers, printers and other types of machinery can be significantly reduced by surrounding the noise source with the proper material.

Working with a customer's design engineers from the early stages helps maximize results and minimize cost. ORION can also custom design insulating materials to absorb, dampen or dissipate sound.

Materials commonly used:

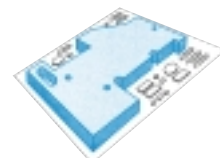
- Acoustical foam
 - Plain, embossed, laminated
- Elastic dampening materials
- Composite materials which provide both a barrier and absorption

ISO 9002



Electrical

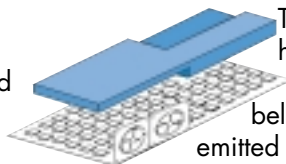
This power supply insulator was manufactured from flame retardant polypropylene, coated with a special static dissipative coating. The part was then perforated at the fold lines for easy assembly.



Thermal

An electrically non-conductive anti-static polyethylene foam was manufactured to cover sensitive components on a circuit board and protect them from temperature extremes.

Acoustical



The custom air baffle was die cut then hot wire cut to accelerate the computer airflow and help cool the p.c. board below. It also served to absorb the noise emitted by the computer fans.