Infrared Optics
Coatings and Capabilities

Andover Corporation

At Andover Corporation, we specialize in cutting-edge infrared coatings using technologies like magnetron sputtering and electron beam with ion-assist. Our coatings cover a range from near-infrared to 14µm.

Our infrared products feature robust first-surface dielectric coatings on high-quality infrared substrates, ensuring the ability to withstand the normal cleaning and handling typical of a high-quality optical component.

Common IR applications include:

- **Infrared Astronomy**
- **Surveillance and Targeting**
- **Thermal Imaging**
- **Weapons Systems**
- **Air, Water, and Gas Analysis**
- **Detector and Dewar Windows**

Standard Infrared Bandpass Filters

We offer a competitive range of standard infrared bandpass filters, designed for high transmission and deep rejection of unwanted wavelengths.

Available in narrow or wide bandwidths, these filters can also be custom-fabricated to meet your specific needs.

- Wavelength Range: 2.0µm - 14.0µm
- Bandwidth Options: 1% to 50% of center wavelength
- Transmission: >85% typical
- Blocking: OD3 average

Custom Infrared Coatings

We offer custom infrared optical coatings on various substrates, shapes, and sizes. Our coatings serve multiple functions, including anti-reflective (AR) coatings, bandpass, long-pass, short-pass, and dichroic filters. Typically optimized for angles of incidence from 0° to 45°, they can be customized for any specific angle or range. Specialized coatings include:

- Dual-band fiters
- Dichroic Beamsplitters
- Ultra-Narrowband Filters

We offer custom infrared optical coatings on various substrates, including:

- Chalcogenide glass
- Germanium
- Sapphire
- Silicon
- Calcium Fluoride
- Zinc Sulfide
- Zinc Selenide

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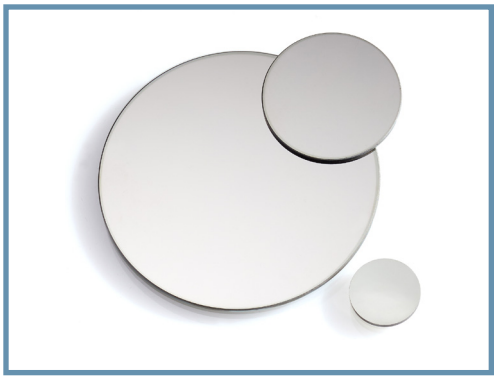
Long Wave Pass Infrared Filters

Our long wave pass filters provide a sharp cut-off below specific wavelengths. Ideal for order sorting, these filters isolate broad spectral regions while ensuring high transmission of desired wavelengths and deep rejection of unwanted ones.

Infrared Neutral Density Filters

Our metallic-coated neutral density (ND) filters achieve optical density through a metal alloy coating on the substrate suited to the wavelength region. Unlike all-dielectric or absorption types, these filters use both absorption and reflection to reduce infrared light intensity.



Broad Band Anti-Reflective Coatings (BBARs)

Our BBAR coatings are designed to reduce reflection on IR substrates like Germanium and Silicon. For Germanium, reflection is reduced from 36% per surface to less than 1%. These coatings meet the military specification MIL-C-48497 and are non-radioactive dielectric multilayer coatings.

Ideal for applications requiring high light throughput and minimal reflections for high-quality imaging. Diamond-Like Carbon (DLC) coatings are also available for exceptional durability and abrasion resistance with high-performing anti-reflective properties..

Shaping the Spectrum with Passion and Precision

nqa AS9100 AEROSPACE & DEFENSE

nqa ISO 9001 QUALITY MANAGEMENT

International Traffic in Arms Regulations Compliant ITAR

www.andovercorp.com
4 Commercial Drive • Salem, NH 03079 • 603 893 6888