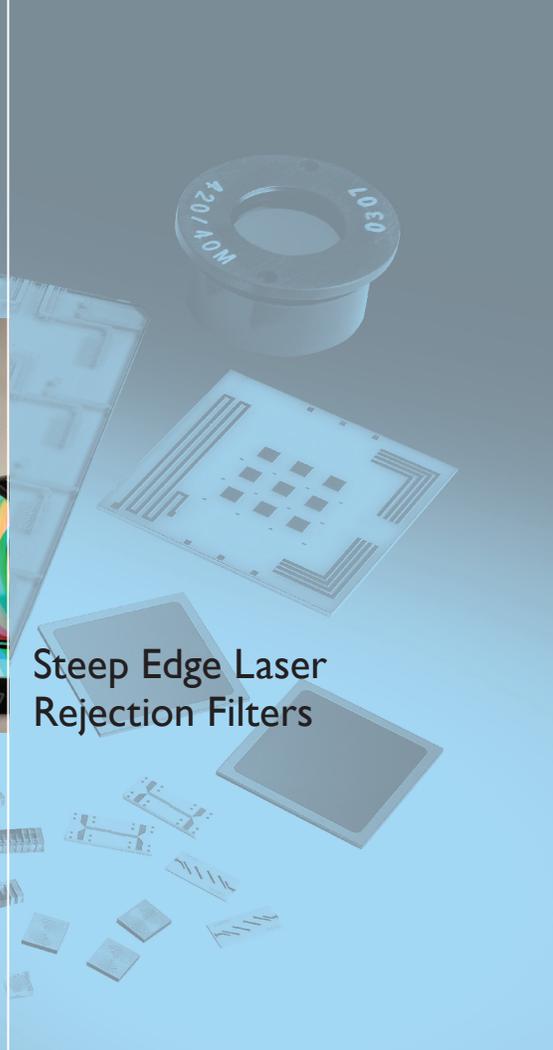




MATERION



**Steep Edge Laser
Rejection Filters**

**BARR PRECISION OPTICS
& THIN FILM COATINGS**



Materion Barr Precision Optics & Thin Film Coatings is a leading manufacturer and supplier of precision optical filters, hybrid circuits, flexible thin films and custom thin film coating services. We offer coating solutions for manufacturers in the defense, commercial, space, science, astronomy and thermal imaging markets.

Steep Edge Laser Rejection Filters

Custom steep edge filters are designed for laser applications where deep attenuation of laser radiation is required with sharp cut-on slope to afford high transmission very close to the laser line. Filters of this type are typically used in Raman Spectroscopy where the Rayleigh line must be effectively suppressed while transmitting Raman scattering separated as closely as 100 cm-1 from it.

- Ideal for Laser Raman applications
- Offered in custom sizes and shapes
- Robust environmental durability characteristics

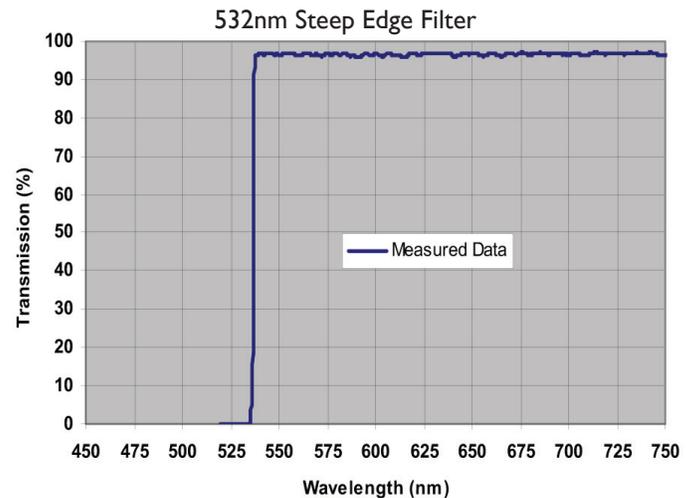


Representative Spectral Properties:

Property	Specification
Edge Steepness [[λ @ 50%T - Laser λ] / Laser λ] x 100	< 1% x Laser λ
Blocking Density	OD 6 Minimum @ Laser λ
Transmission Passband	> 1.4 x Laser λ
Transmission	> 90% Ave T%
Temperature Coefficient	< [(4ppm) x (Center λ)] / deg C

Representative Spectral Properties:

Property	Specification
Coating Type	Durable, stable oxide
Substrate Material	UV-grade fused silica
Transmitted Wavefront Error	Typical value: <1.25 wave peak-to-valley @ 633 nm
Mounting Configuration	Ring-mounted, or unmounted rounds or squares
Clear Aperture	85% nominal
Surface Quality	80/50 or 60/40 Scratch/Dig within Clear Aperture as specified
Environmental Durability (Temperature and Humidity)	MIL-STD 810F
Physical Durability (Adhesion, Abrasion, Solubility)	MIL-C-48497A



Materion is a global advanced materials company, dedicated to providing solutions that enable our customers' technologies and drive their growth. Our products include precious and non-precious specialty metals, precision optical filters, inorganic chemicals and powders, specialty coatings, specialty-engineered beryllium alloys, beryllium and beryllium composites, and engineered clad and plated metal systems. The Materion business is structured to enhance our ability to provide customers with innovative, best total-cost solutions.

FOR PRECISION OPTICAL COATING PRODUCTS

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MATERION CORPORATION

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