UV/IR-Blocker and UV-Blocker

The Challenge
Materion Barr Precision Optics & Thin Film Coatings’ UV/IR-Blocker effectively removes damaging ultraviolet and unwanted infrared radiation produced by broadband light sources. Our dielectric oxide coating design provides excellent transmission over the entire visible spectrum, without distorting the spectral emission of the light source.

Filters are optimized for metal halide lamps and are particularly well suited for use in applications where high thermal loads exist. Where infrared radiation is not critical, the Materion Barr Precision Optics & Thin Film Coatings UV-Blocker may be used.

Benefits
- Excellent UV- and broadband IR-reflection
- High visible transmission
- No color distortion
- UV- and IR-rejection independent of glass thickness
- Hard chemically and mechanically stable dielectric oxide coating
- High volume production capabilities
- Deep UV IR cut

Applications
- Entertainment Lighting
- Fiber optics
- Product showcases
- Museum lighting
- Illumination of arts
- Medical lighting

Technical Data

Temperature resistant
- up to 400°C

Spectral characteristics, AOI = 0°
- T < 1%, avg. 300 ~ 400*nm
- T = 50% 420* ±5 nm
- T > 95% avg. 440* ~ 680** nm
- T > 90% abs. 440* ~ 680** nm
- T = 50% 700***+/−10nm
- T ≤ 3% avg. 750** ~ 900** nm

Substrate Material
- Heat resistant borosilicate glass

Standard size
- 160 × 110 × 1.1 mm
Spectral curve of UV/IR-blocker and emission spectrum of typical projection lamp

The image shows two curves: one for the transmittance of a UV/IR-blocker and the other for a typical projection lamp. The x-axis represents the wavelength in nanometers (nm), and the y-axis represents the transmittance in percentage (%). The curves are overlaid, allowing for a comparison of their spectral characteristics.

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.