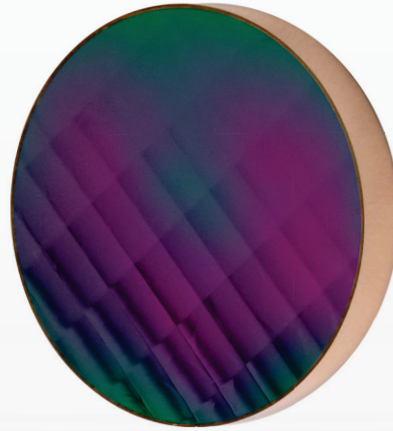


II-VI



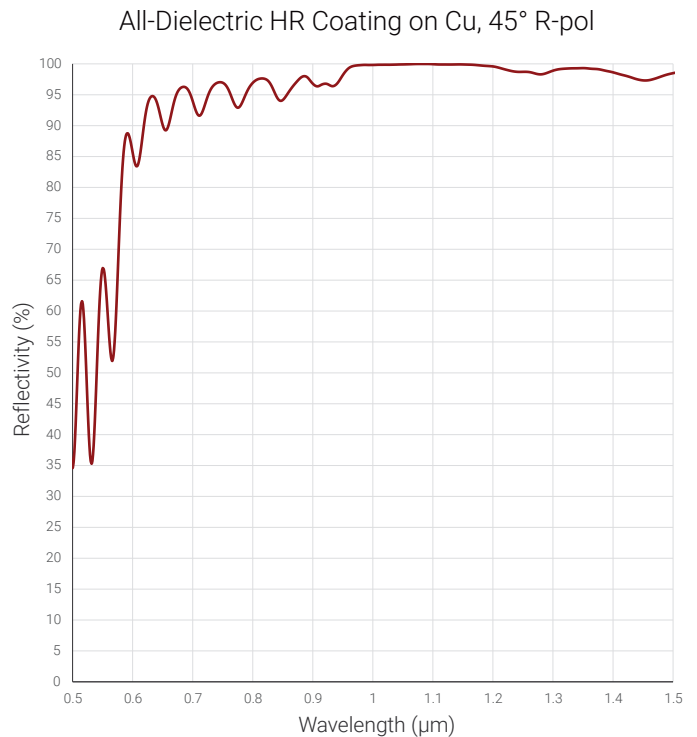
High Reflector Dielectric Coatings for 1 μ m

II-VI introduces all-dielectric high reflectivity coatings on custom diamond-turned metal mirrors for 1 μ m applications. By combining industry leading diamond-turning capabilities for producing ultra-precision machined metal components with state-of-the-art coating technology for high laser damage threshold coatings, II-VI is your single source solution for custom beam-shaping optics for high power cutting and welding applications.

High Reflector Dielectric Coatings for 1 μ m

Features

- All-dielectric coating design utilizing IBS technology for fiber and direct diode laser applications
- Many advantages of metal mirror substrates over fused silica including:
 - Internal water-cooling channels
 - Diamond-turned freeform surfaces
 - Deformable (variable radius) surfaces
- Post polishing capabilities for diffraction-free mirrors with $\lambda/10$ flatness or lower and roughness as low as 10 \AA RMS in some applications



Properties

Substrate Materials	Cu, Al, Brass-plated Al
Substrate Diameter	Up to 300 mm
Spectral Region*	1030 – 1070 nm
Reflectivity (per surface)*	$\geq 99.7\%$ @ 1030-1070 nm, $\geq 80\%$ @ 600-700 nm AOI: 0° or 45° R-pol
Laser Damage Threshold (Cu)	$\geq 200 \text{ MW/cm}^2 \text{ CW}$
Environmental Performance (per MIL-C-48497)	3.4.1.2 Humidity 3.4.1.3 Moderate Abrasion 3.4.2.1 Temperature

* Custom coating designs available upon request