

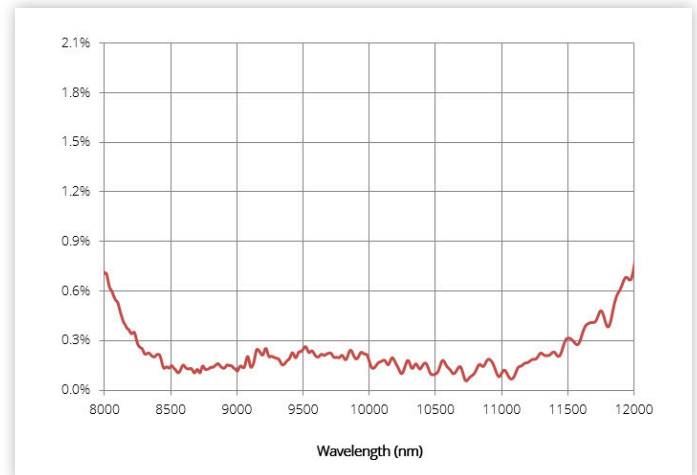


HEAR IR COATING

Spectral Characteristics

Spectral Region	Spectral Range	Common Substrate Materials
SWIR	0.9 to 2.7 μ	<ul style="list-style-type: none"> • Glasses • Sapphire • Zinc Selenide • Zinc Sulfide • Calcium Fluoride
MWIR	3.0 to 5.0 μ	<ul style="list-style-type: none"> • Silicon • Germanium • Sapphire • Zinc Selenide • Zinc Sulfide • Calcium Fluoride • Various Chalcogenides
LWIR	7.0 to 14.0 μ	<ul style="list-style-type: none"> • Germanium • Zinc Selenide • Zinc Sulfide • Various Chalcogenides
MWIR-LWIR (multi-spectral)	3.0 to 14.0 μ	<ul style="list-style-type: none"> • Germanium • Zinc Selenide • Zinc Sulfide

Spectral Performance on Ge (8-12 μ)



- Average Reflection \leq 0.3% per surface
- Near normal Angle of Incidence
- Transmission average \geq 98.0%

Coating Durability

- Adhesion: Tape pull
- Moderate abrasion
- Humidity: 24 hours
- Temperature cycle

STANDARD AND CUSTOM SOLUTIONS



DLC COATING

Spectral Performance

- Spectral region: 8.0 to 11.5 μ (0° to 20° AOI)
- Transmission: \geq 90% avg.
- Spectral region: 8.0 to 12.0 μ (0° to 20° AOI)
- Transmission: \geq 88% avg.

Quality Requirements

Per MIL-M-13508C and MIL-C675C

- Adhesion: Fast
- Abrasion: Severe abrasion 40 strokes
- Humidity: Min 24 hours
- Solubility: Immersion for a period of 24 hours in water/salt
- Salt Spray: Salt spray-fog test for a continuous period of 24 hours
- Temperature Cycle: Exposed to -80° C and +160° C for 2 hours each
- Windscreen Wiper: No signs of removal when exposed to 5,000 revolutions in a sand/slurry mixture



VIRTUALLY 0 PINHOLES