

CO 4009 Ge 8-12

High efficiency radioactive free antireflection coating for Germanium 8 - 12 μm

DESCRIPTION

This coating is designed for internal surface (I.S.) applications and offers maximum transmission combined with low reflection. Typically used in thermal imaging systems. This coating does not contain any radioactive materials.

SPECTRAL PERFORMANCE

Transmission values are for a 1 mm thick Germanium substrate which has been coated on both surfaces with CO 4009.

TRANSMISSION > 98% (average) from 7.5 - 11.5 μm
TRANSMISSION > 96% (absolute) from 7.5 - 11.5 μm
TRANSMISSION > 94% (average) from 11.5 - 12.3 μm

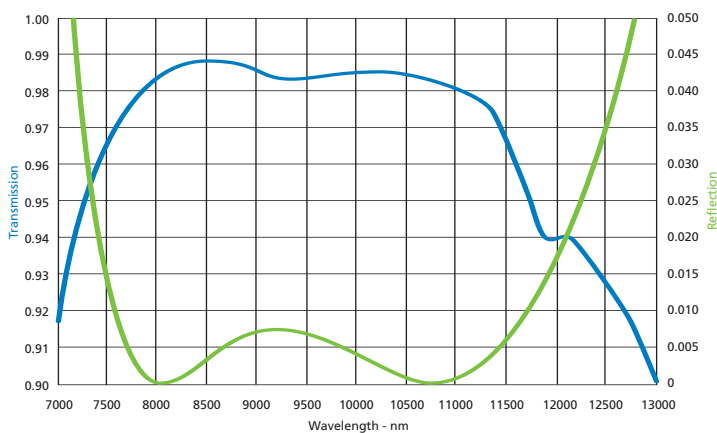
Reflection values are for a single Germanium surface coated with CO 4009.

REFLECTION < 0.9% (average) from 7.5 - 8 μm
REFLECTION < 0.3% (average) from 8 - 11.5 μm
REFLECTION < 1.3% (average) from 11.5 - 12.3 μm

This coating can be produced to meet any other "industry standard" spectral specification in the 7.5 - 12 μm band.

ENVIRONMENTAL PERFORMANCE

The coating will withstand the following environmental tests which will be carried out on a representative witness piece coated in the same batch.



ADHESION MIL-C-48497 para 4.5.3.1
TS1888 para 5.1

HUMIDITY MIL-C-48497 para 4.5.3.2
TS1888 para 5.2.1.2

ABRASION MIL-C-48497 para 4.5.3.3
TS1888 para 5.4.1

This coating is also unaffected by the following environmental tests which will be performed upon request.

SALT SOLUTION MIL-C-48497 para 4.5.5.2
TS1888 para 5.2.1.1

TEMPERATURE CYCLE MIL-M-13508C para. 4.4.4