

CO 2202 ZnS Multispectral

Durable Antireflection coating
for multispectral Zinc Sulphide
visible - 12 μm

DESCRIPTION

This coating is designed to give maximum transmission at wavelengths in the visible - 12 μm region.

Typically used in optical systems operating at more than one wavelength region and is suitable for external surfaces.

SPECTRAL PERFORMANCE

Transmission values are for a 2 mm thick multispectral Zinc Sulphide substrate which has been coated on both surfaces with CO 2202.

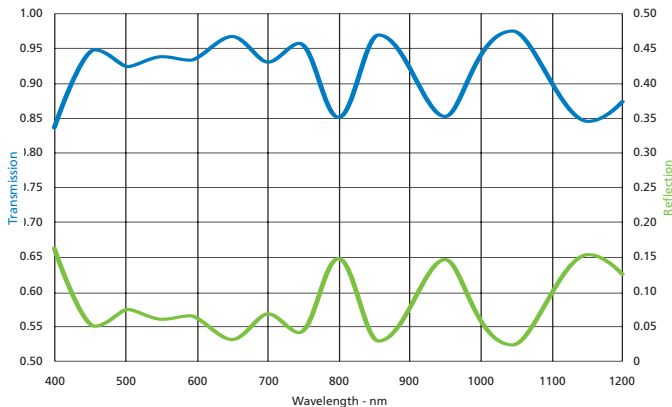
TRANSMISSION > 92% (average) from 450 - 650 nm

TRANSMISSION > 95% (absolute) at 1064 or 1540 nm

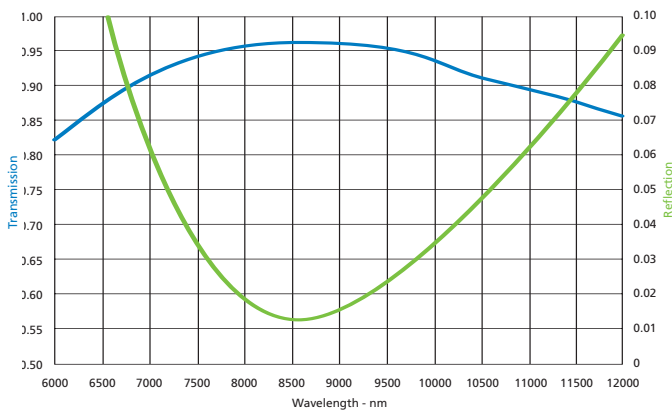
TRANSMISSION > 93% (average) from 8 - 11.5 μm

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 TS1888	para 4.5.3.1 para 5.1
HUMIDITY	MIL-C-48497 TS1888	para 4.5.3.2 para 5.2.1.2
ABRASION	MIL-C-48497 TS1888	para 4.5.5.1 para 5.4.2
SALT SOLUTION	MIL-C-48497 TS1888	para 4.5.5.2 para 5.2.1.1



CO 2202E ZnS Multispectral

Wiper Resistant multispectral antireflection coating for Zinc Sulphide visible - 12 μm

DESCRIPTION

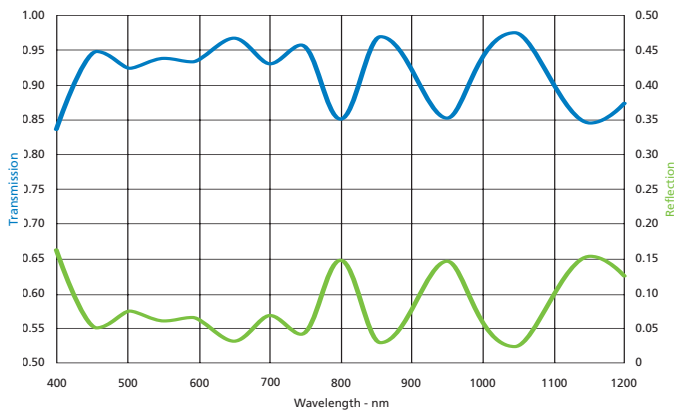
An improved abrasion resistant coating for external surfaces, for use at wavelengths in the visible - 12 μm region. The specification is similar to that of CO 2202, except that this coating offers windscreen wiper resistance.

SPECTRAL PERFORMANCE

Transmission values are for a 1 mm thick Zinc Sulphide substrate which has been coated on one surface with 2202E and on the second surface with CO 2202.
 TRANSMISSION > 90% (average) from 450 - 650 nm
 TRANSMISSION > 95% (absolute) at 1064 or 1540 nm
 TRANSMISSION > 93% (average) from 8 - 11.5 μm
 Performance can be re-optimized to meet specific customer requirements.

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.

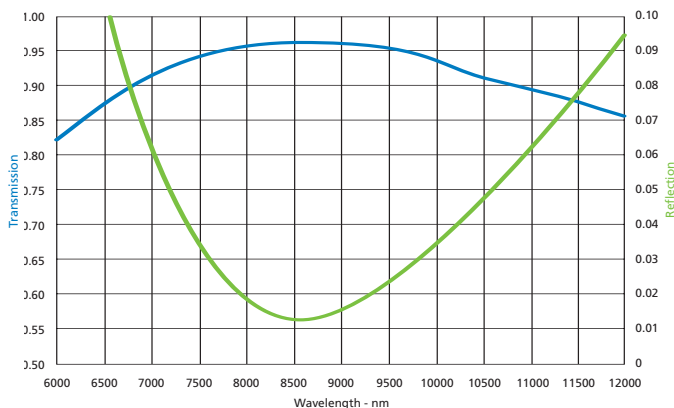


As CO 2202 with the following additional tests

WIPER ABRASION TS1888 para 5.4.3
5000 wipes

Rain Erosion Resistance will meet the following values as a minimum:-
 TRANSMISSION LOSS < 4% (average) from 8.0-11.5 μm
 Under the following test conditions:

PERIOD OF EROSION: 1 hour
 RAIN DROPS: 2 mm mean diameter
 IMPACT ANGLE: 60° to the surface
 SPEED: 500 mph/223 m/s
 RATE OF RAIN: 25 mm/hour



CO OM12

Wideband IR mirror for oblique incidence

DESCRIPTION

This coating is designed to retain high reflectivity in the IR over a wide angular range.

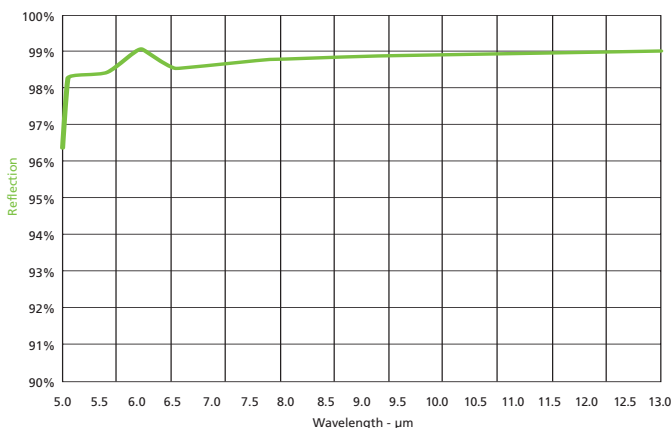
The mirror uses gold as the medium for high reflectivity, and the protective overlayers have been chosen so as to eliminate the reflectivity problems suffered by conventional protected mirrors when used in the IR at oblique incidence.

SPECTRAL PERFORMANCE

Measured at 45° angle of incidence
REFLECTION >98% (average) 3 - 5 μm
REFLECTION >98% (average) 8 - 12 μm

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 TS1888	para 4.5.3.1 para 5.1
HUMIDITY	MIL-C-48497 TS1888	para 4.5.3.2 para 5.2.1.2
ABRASION	MIL-C-48497 TS1888	para 4.5.3.3 para 5.4.1