

# CO 3435 STAR Si 3-5

High durability antireflection coating  
for Silicon  
3 - 5  $\mu\text{m}$

## DESCRIPTION

This coating is designed for use on the external surface of lenses and windows that are exposed to harsh (in particular, marine) environments, in those cases where the residual reflectance and lower transmittance of hard carbon (CO 3404) is undesirable. In addition the coating can be designed to match the response curve of particular detectors in order to minimise narcissus.

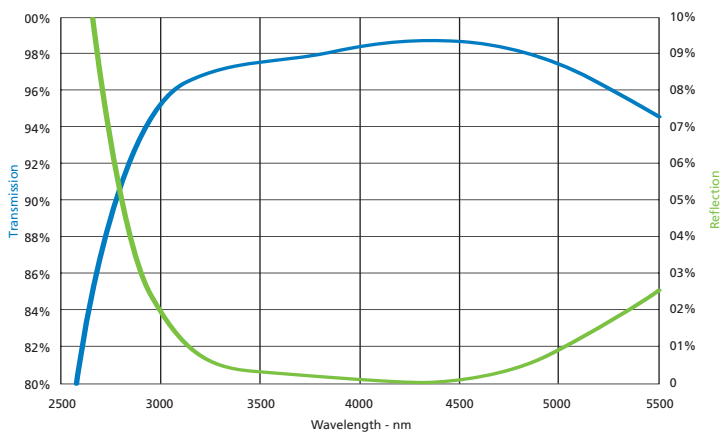
## SPECTRAL PERFORMANCE

Transmission values are for a 1 mm thick Silicon substrate which has been coated on one surface with CO 3435 and on the second surface with CO 3429 (High Efficiency Coating)  
TRANSMISSION > 97.5% (average) from 3 - 5  $\mu\text{m}$ , or > 98% (average) from 3.5 - 5  $\mu\text{m}$

Reflection values are for a single Silicon surface coated with CO 3435  
REFLECTANCE < 0.5% (average) from 3 - 5  $\mu\text{m}$ , or < 0.3% (average) from 3.5 - 5  $\mu\text{m}$

## ENVIRONMENTAL PERFORMANCE

This 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
SOLUBILITY	MIL-C-48497 TS1888	para 4.5.5.2 para 5.2.1.1
ABRASION	MIL-C-48497 TS1888	para 4.5.5.1 para 5.4.2
SALT FOG 10 days continuous	MIL-STD-810F	method 509.4