

Theoretical Coating Transmission Curves

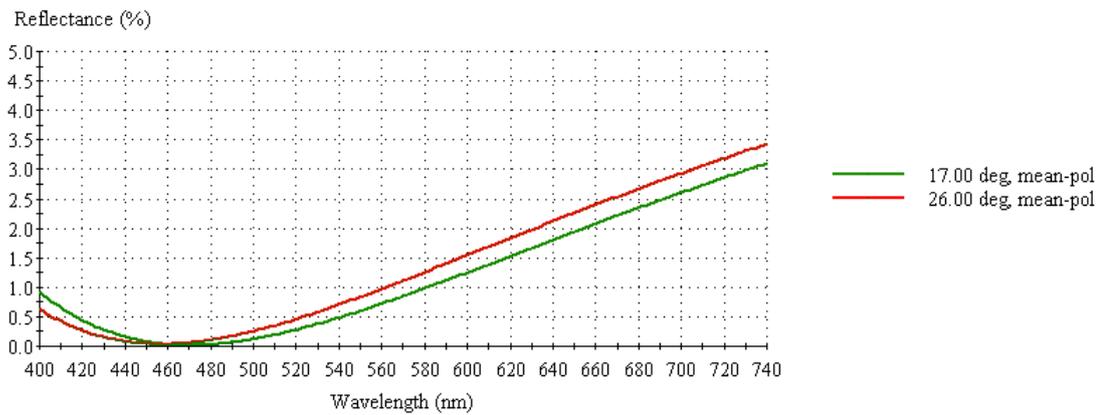
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Theoretical Transmission Curves for AR Coatings Deposited on N-SF66 Prisms

The high refractive index of N-SF66 makes it possible to use very simple coatings to great effect. Depositing single quarter wave layers optimised for the centres of the two required wavelength ranges gives reflection coefficients of <0.5% average over the ranges. The following curves show the performance of the coatings over the two wavelength bands at the nominal angle of 22.8° and showing the angular spread due to the dispersed emerging light.

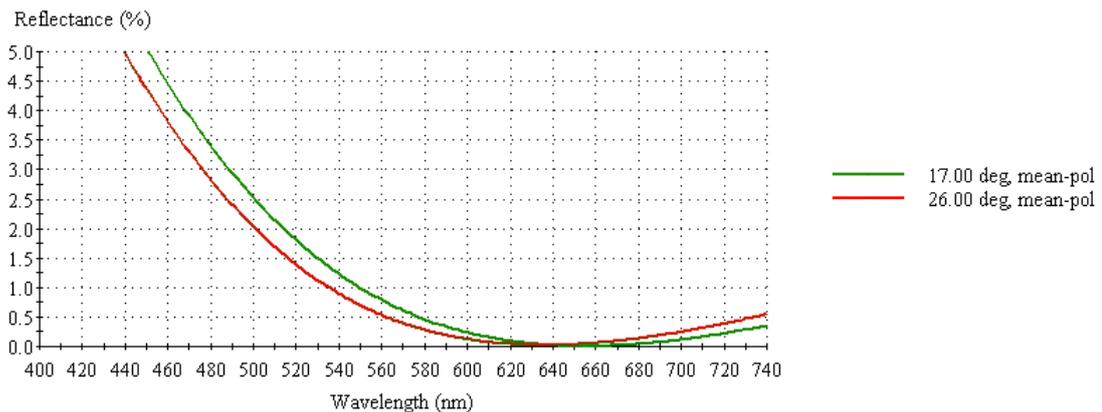
AR for 430-520nm Band

ICOS AR SF66: 430-520nm



AR for 600-715nm Band

ICOS AR SF66: 600-715nm



The reduction in reflection afforded by the AR coating over the uncoated surface of N-SF66 is a dramatic ~9.5% when optimising the layer thickness for each range. The reduction would not be so dramatic using a single coating as is intimated by the increasing slopes out of band in the curves above.