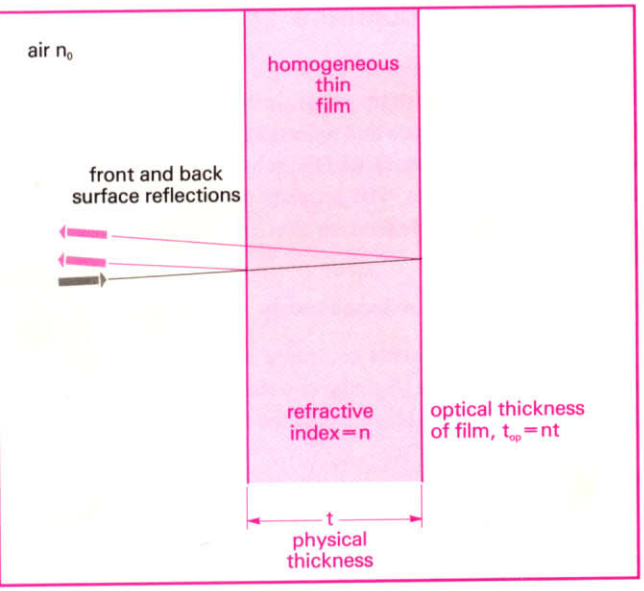
THIN FILM INTERFERENCE, THICK DIELECTRIC STACKS

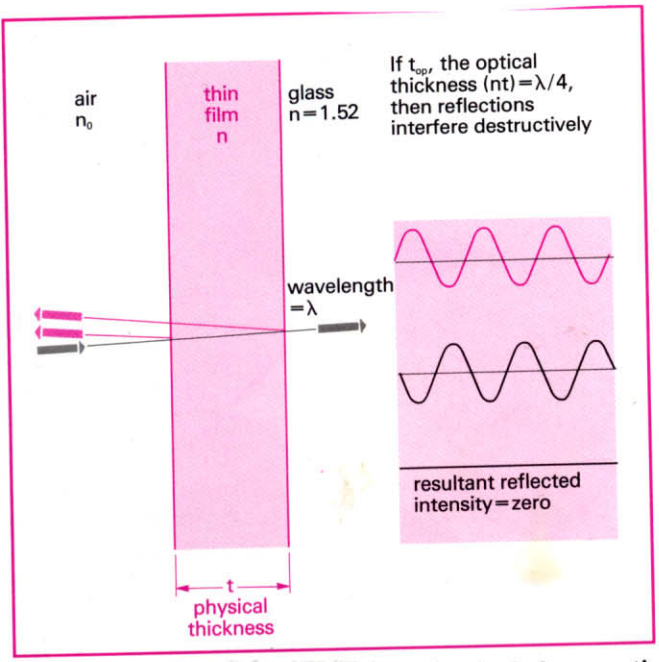
Illustrations courtesy of Optics Guide by Melles Griot.



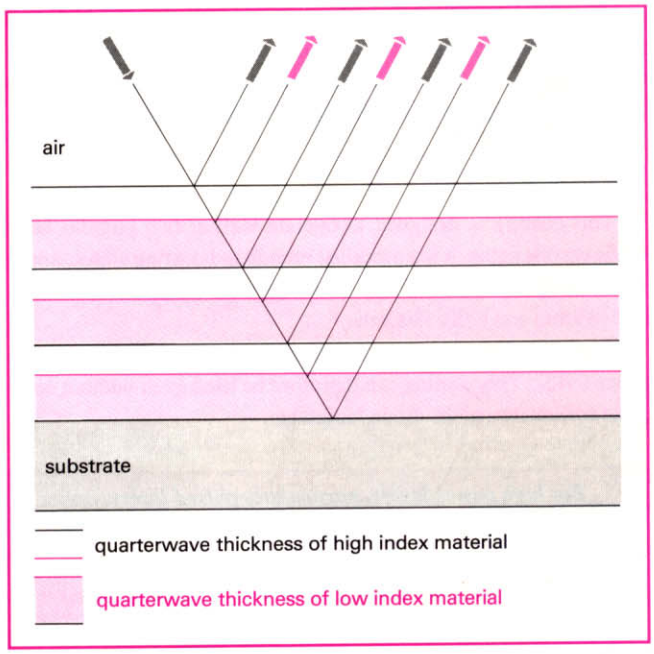
FRONT AND BACK SURFACE reflections for a thin film at near-normal incidence.

ABOVE: Constructive or Destructive interference can occur between the first and second reflections depending on optical thickness.

BELOW: An application of 1/4-wave thick film.



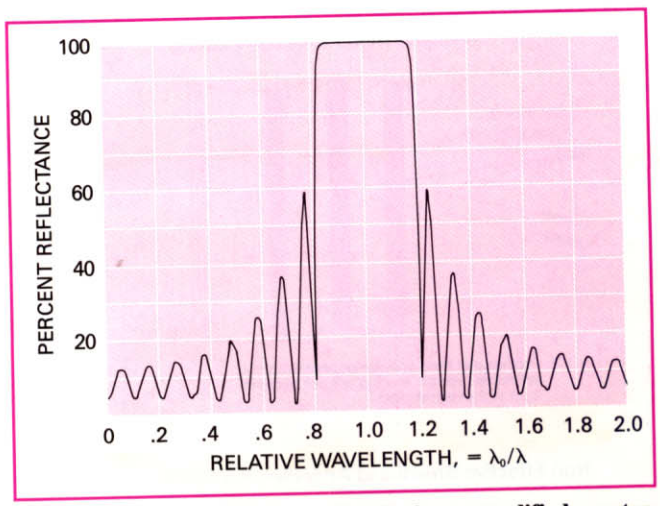
SCHEMATIC REPRESENTATION of a single layer anti-reflection coating.



A SIMPLE QUARTERWAVE STACK.

ABOVE: Construction of a highly reflective thick dielectric stack.

BELOW: Highly selective nature of above. Reflectivity also varies with angle of incidence.



TYPICAL REFLECTANCE CURVE of an unmodified quarter-wave stack.