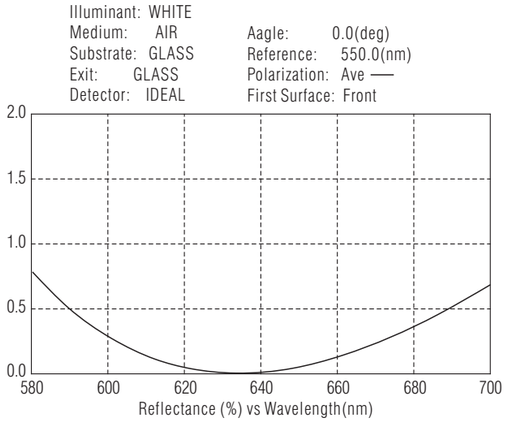
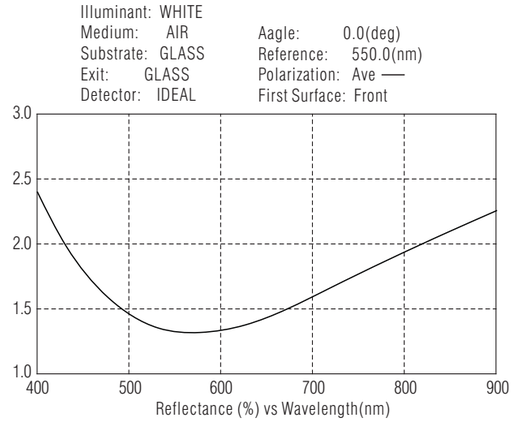
ANTI-REFLECTIVE COATING

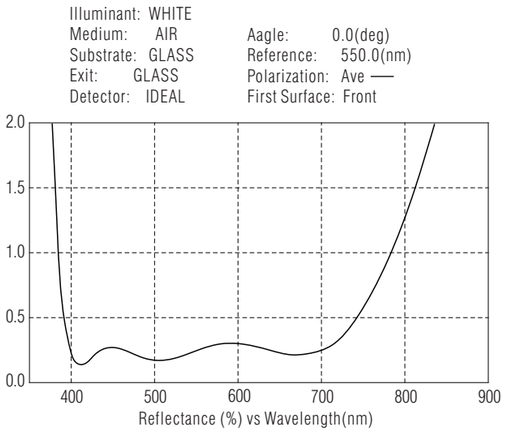
A thin layer of material applied to a surface to reduce the amount of reflected energy. Ideally the index of refraction of that material should be equal to the square root of the product of the indices of the material on either side of the coating, while the ideal thickness for a single-layer coating is one-quarter of the wavelength at which reflectance is to be minimized.



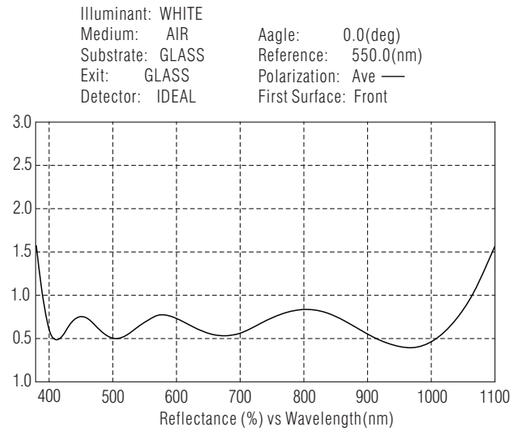
AR@633nm



MgF2@550nm



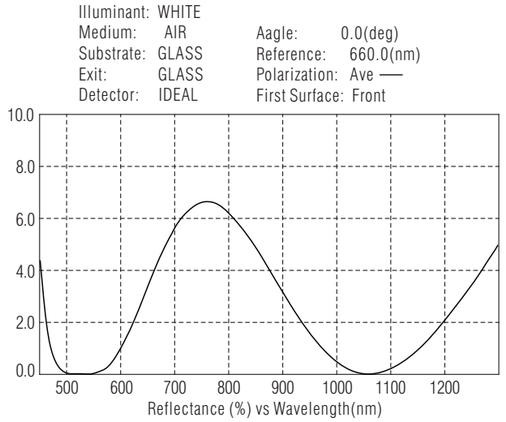
AR@400-700nm



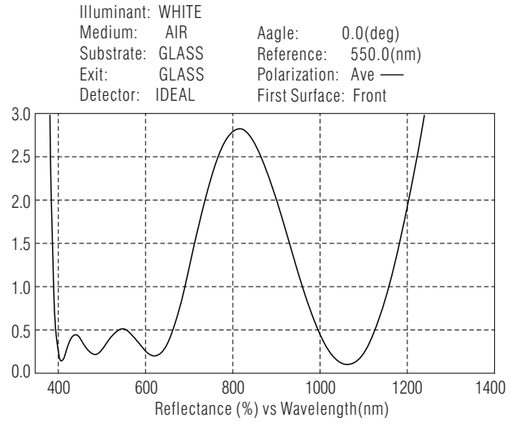
AR@400-1000nm

ANTI-REFLECTIVE COATING

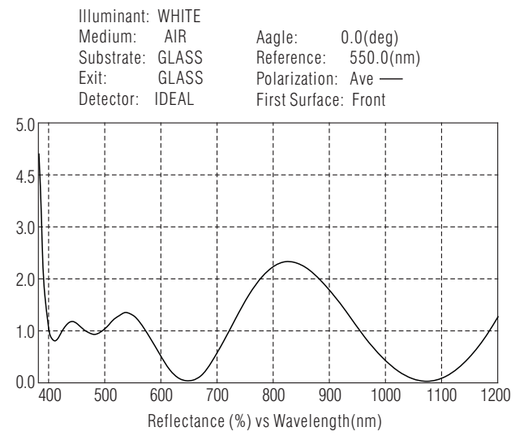
A thin layer of material applied to a surface to reduce the amount of reflected energy. Ideally the index of refraction of that material should be equal to the square root of the product of the indices of the material on either side of the coating, while the ideal thickness for a single-layer coating is one-quarter of the wavelength at which reflectance is to be minimized.



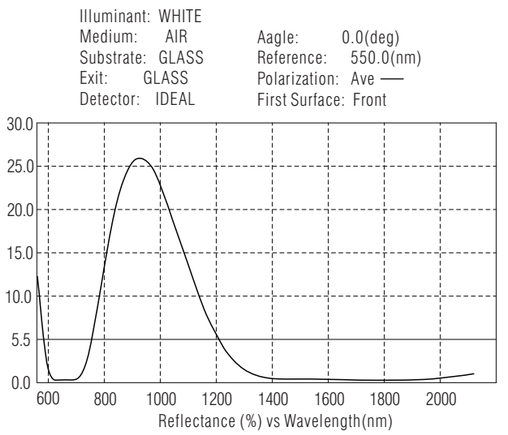
AR@532&1064nm



AR@400-600&1064nm



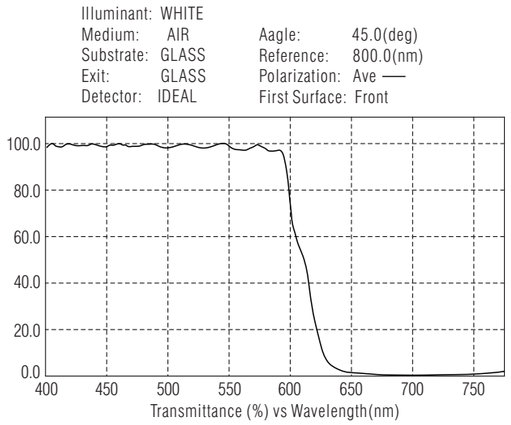
AR@400-1200nm



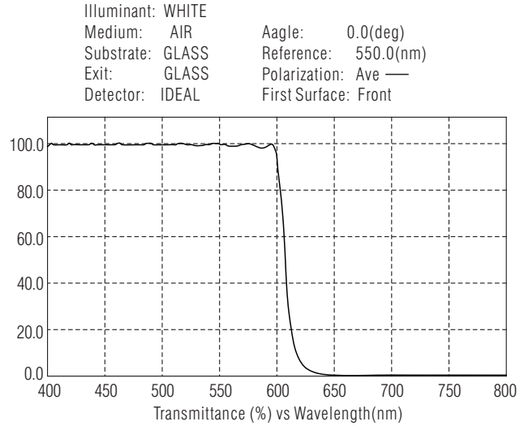
AR@650&1400-2000nm

DIELECTRIC COATING- HR COATING AND PR COATING

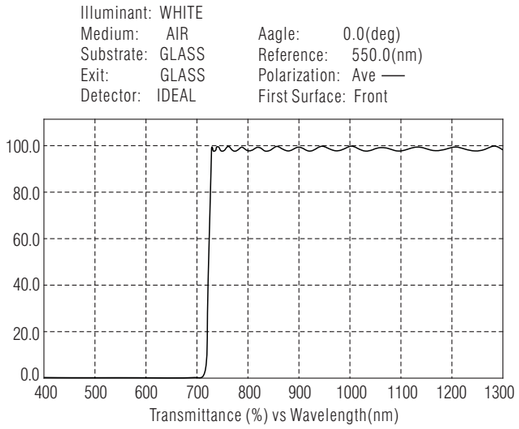
A dielectric coating consisting of alternating layers of quarter-wave film of a higher refractive index and lower refractive index than the substrate. Such coatings can be made very specific to a reflected wavelength or, by varying the layers' thicknesses or film indexes, spread over a wide wavelength interval including high reflection coating (HR) and partial reflective coating (PR).



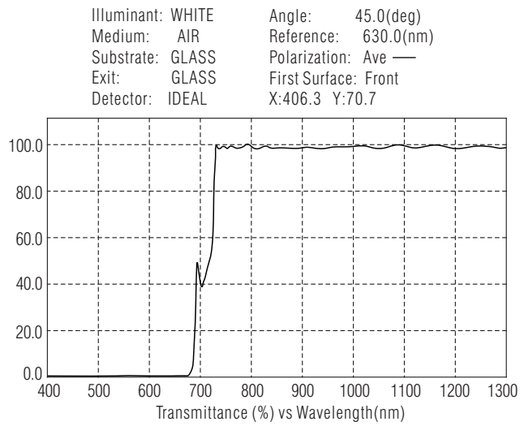
HT@400-560&HR@650-750nm AOI=45



HT@400-560&HR@650-750nm AOI=0



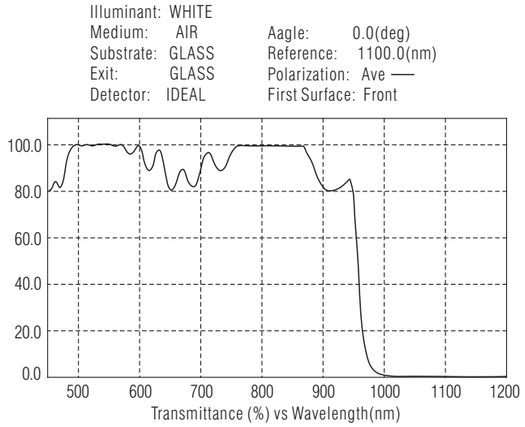
HR@400-700nm&HT@730-815nm AOI=0



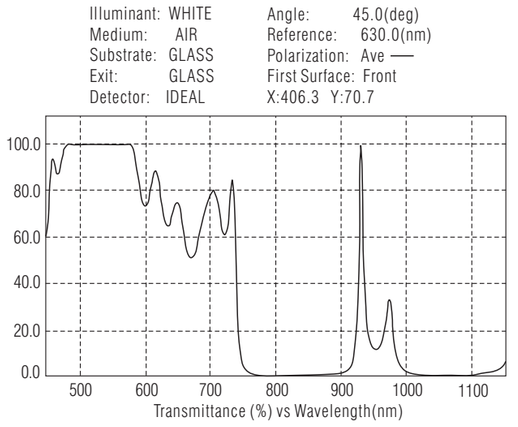
HR@400-680nm&HT@750-1300nm AOI=45

DIELECTRIC COATING- HR COATING AND PR COATING

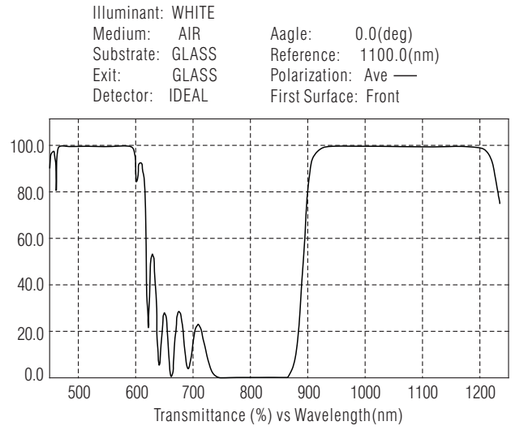
A dielectric coating consisting of alternating layers of quarter-wave film of a higher refractive index and lower refractive index than the substrate. Such coatings can be made very specific to a reflected wavelength or, by varying the layers' thicknesses or film indexes, spread over a wide wavelength interval including high reflection coating (HR) and partial reflective coating (PR).



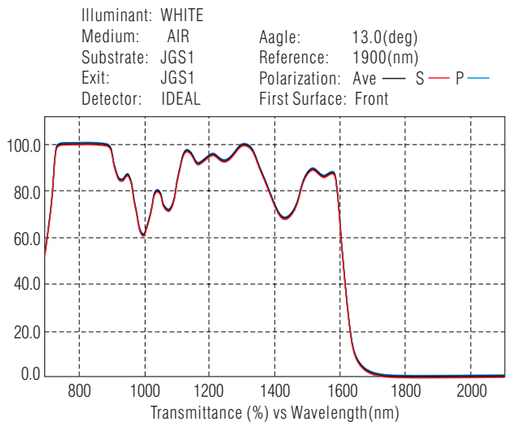
HR@1064nm&HT@532&808nm AOI=0



HR@1064&808nm&HT@532nm AOI=45



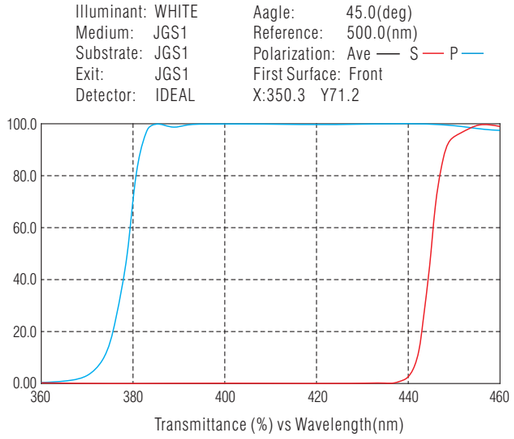
HR@1064&532nm&HT@808nm AOI=0



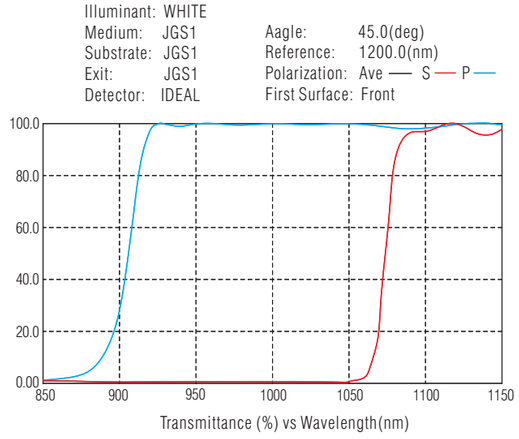
HR@1800-2000nm&HT@785-815nm

POLARIZATION BEAMSPLITTER COATING

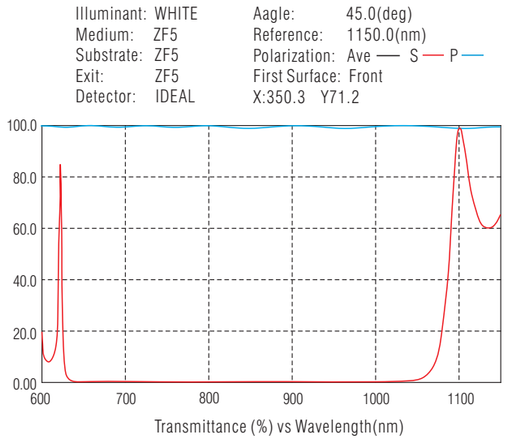
An optical device for dividing a beam into two or more separate beams. A simple beamsplitter may be a very thin sheet of glass inserted in the beam at an angle to divert a portion of the beam in a different direction. A more sophisticated type consists of two right-angle prisms cemented together at their hypotenuse faces. The cemented face of one prism is coated, before cementing, with a metallic or dielectric layer having the desired reflecting properties, both in the percentage of reflection and the desired color.



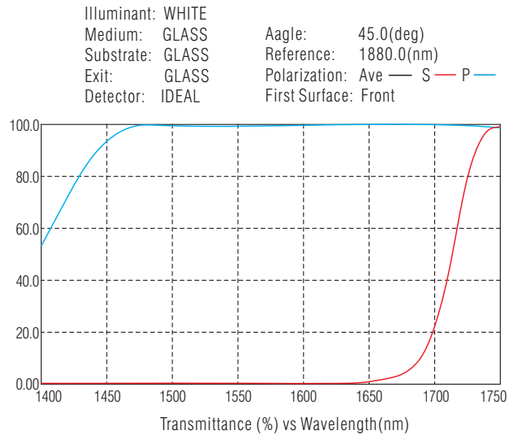
PBS@405+/-10nm



PBS@980+/-30nm



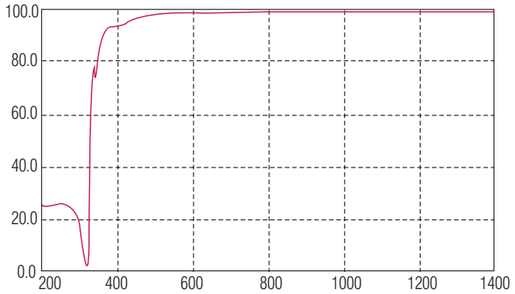
PBS@700-900nm



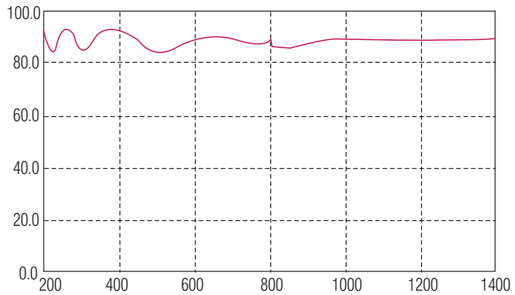
PBS@1520-1610nm

Mirror--Metal Coating

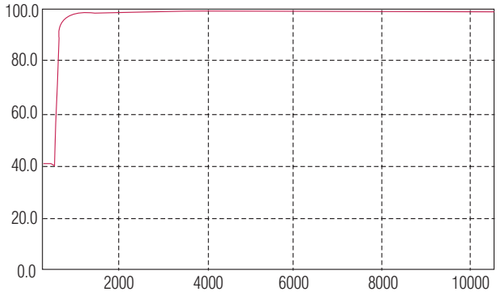
A thin layer of metal deposited on the surface of a substrate. The film may serve as a reflector, beamsplitter, neutral density filter or electromagnetic interference filter. The most common metal coating as for mirror is Al, Ag, Au, Cr, etc.



Ag coating



Al coating



Au coating