

TECHNICAL INFORMATION

Beamsplitter Coatings

Data Sheet 205

TMF can provide several variations in coating design for the beamsplitting surface, ranging from dielectric multilayer systems to single layer metallic coatings. The transmission / reflectance ratio and the efficiency specified will determine the coating used.

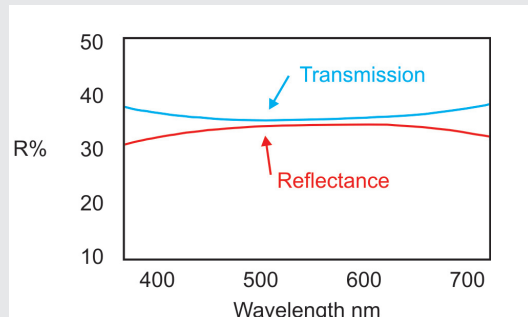
Metal (50/50 Ratio)

Advantages:

- Good wavelength neutrality.
- Wide range of T/R ratio.
- Large sizes, up to 1500 x 2500mm

Disadvantages:

- High absorption factor



Dielectric (50/50 Ratio)

Advantages:

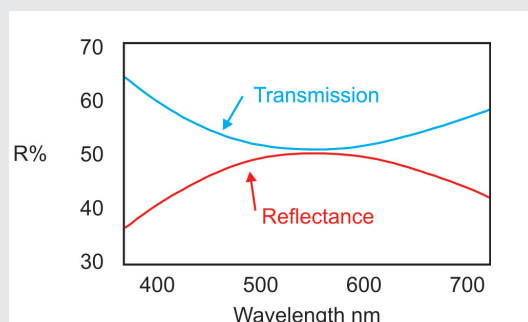
- Low absorption
- T/R ratio can be designed to cover 2-98% over a waveband 400-1500nm.
- Ideally suited for single wavelength application.

Disadvantages:

- Ratio is wavelength dependent.
- Can produce polarisation effect above incident angles of 20°

Application:

- Laser beamsplitters.
- Sighting systems.



Neutral Titanium Oxide (65/35 Ratio)

Advantages:

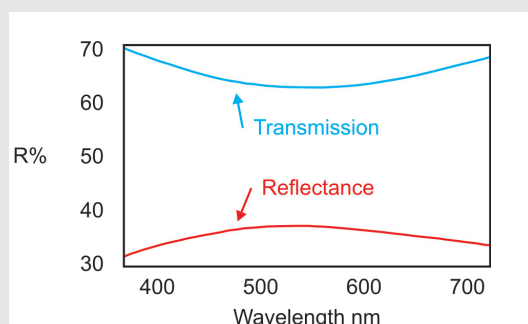
- Good neutrality for T/R ratios up to 65 / 35.
- Non absorbing.
- Large size availability.

Disadvantage:

- Maximum T/R ratio is 65 / 35.

Application:

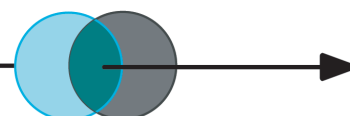
- Ideally suited for simulator protection, e.g. aircraft simulators,
- T.V. prompting and cueing systems.
- Head up displays.



Please phone to discuss any variations in standard coatings that you may require.

thinmetalfilms Ltd.

Precision Optical Coating Engineers



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