



Dichroic Colour Filters

Thin film filters are the most efficient way of splitting white light into colours. AFETC can offer a range of colour filters for a wide variety of applications including projection systems, individual filters, colour filter wheels, and X-cube prisms. Colour splitting can be either by transmission or reflection, primary or complementary colour filters.

We can custom design dichroic colour filters for a wide range spectral requirements, for different angles of incidence and polarisation states.

Manufacture is by plasma assisted electron beam deposition process which provides high spectral stability independent of temperature or humidity variations. The coatings are extremely rugged, passing all relevant military specifications. Features of the filters coatings are:

- Plasma assisted deposition for thermal and environmental stability
- High efficiency visible reflection coupled with efficient heat rejection
- Temperature stable with extended operational lifetime
- Meets most military durability specifications

Typical environmental specifications:

Operating temperature range: -40 to 300°C
Spectral temperature stability: <0.5nm shift 20 to 100°C
Adhesion, abrasion resistance MIL-C-48497
Humidity, salt fog, temp. shock MIL-STD-810B

