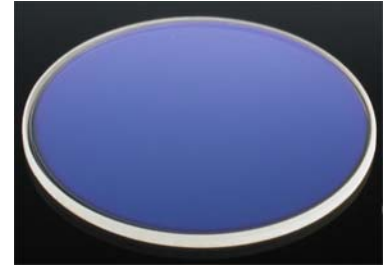
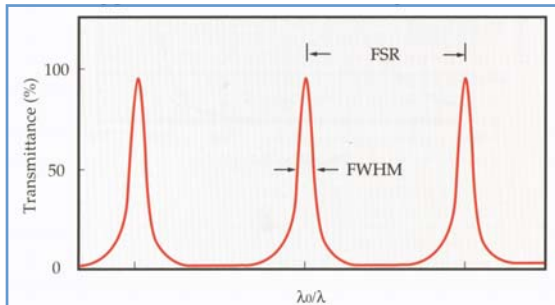


Etalons



These Fabry-Perot Etalons are parallel sided polished plates of UV synthetic fused silica. Their thickness is precisely controlled so that reflections from opposite faces are in phase, and therefore reinforced, at the wavelength of interest. They are used for the selection of laser line output and the



elimination of unwanted nearby lines. Etalons are designed for a particular free spectral range (FSR) which represents the distance between adjacent peak transmittance wavelengths λ_0/λ . FSR is normally specified as a frequency interval in GHz. The finesse (FSR/FWHM) of an etalon is controlled by the reflectance of the surfaces with higher reflectance providing a better finesse but accordingly reduced transmittance.

Etalons can be produced with thickness in a range from 100 μm to 10 mm corresponding to FSR from 1000 GHz down to 10 GHz. (For higher FSR values in the range 500 GHz to 6000 GHz air-spaced etalons are recommended. These can be quoted on special request.)

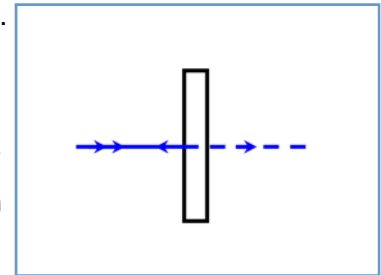
Coatings are applied

to the surfaces of the etalon to produce controlled reflectance from 30% to 97%, thereby providing finesse values ranging from 2.5 to 100.

Excimer, Nd:YAG and Diode lasers benefit from the use of etalons. Many different laser wavelengths from UV to near IR can be accommodated but etalons are wavelength specific so it is important to specify the wavelength precisely when ordering.

Frequently requested wavelengths are: 248, 266, 308, 355, 488, 514, 527, 532, 543, 670, 694, 1014, 1054, 1064 nm. Telecom wavelengths have special requirements so please ask if you are interested in these.

Usual dimensions are 12.7 mm and 25.4 mm diameter but other sizes can be supplied on request.



Typical Specifications	
Substrate Material:	UV Fused Silica
Surface flatness:	$\lambda/10$ @ 633 nm
Surface quality:	10/5
Parallelism:	< 1 arcsec
Diameter:	+0.0 / -0.2 mm
Thickness:	as required
Clear aperture:	> 85% of diameter
Damage Threshold:	> 5J/cm ² , 10 ns
Durability:	MIL-C-675

To request a quote or to order, please specify:

Quantity — Diameter — Wavelength — FSR — Finesse

Optarius

PO Box 2271
Malmesbury SN16 9FA
United Kingdom

Optics for Lasers

Phone: +44 1666 575185
Fax: +44 1666 577424
Email: optarius@optarius.com
Web: www.optarius.com

For a quotation — please phone, fax or email us with details of your requirements.