NOTCH FILTERS

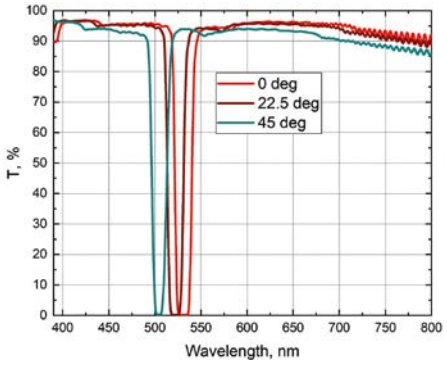
Notch filters are designed to block a specific narrow wavelength range (stop band) and to transmit broad wavelength ranges outside of this band (pass bands). These optical filters feature high optical density (OD), which is a logarithmic measurement of the percent transmission (T%): $OD = \log_{10} {}^{1}/_{T\%}$. OD is specified for the center wavelength of the stop band.

EKSMA Optics Notch filters feature OD 6.0 (transmission less than 0.0001%) that ensures effective blocking of the designated laser wavelength. The back side of the filter is anti-reflection coated at pass band regions to minimize the reflection.

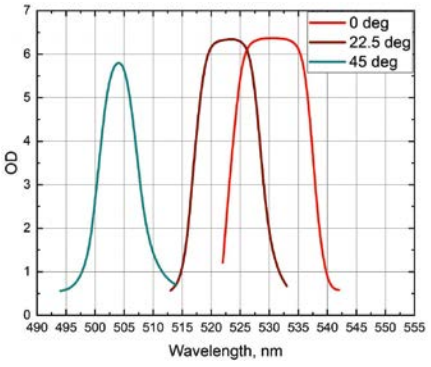
The spectral characteristics of Notch filters strongly depend on the angle of incidence (AOI). We specify OD for the design wavelength at 0° AOI. As angle of incidence increases, the stop band shifts to shorter wavelengths. We provide transmission curves for different AOI values (0°, 22.5°, 45°) for each of our standard Notch filters.

Specifications

Material	UV grade fused silica
Surface Flatness	λ/2 @ 633 nm
Surface Quality	40 – 20 scratch & dig (MIL-PRF-13830B)
Outer Diameter	25.4 mm
Tickness	6 mm
Clear Aperture	Ø 22 mm
Coating	S1: Hard dielectric filter coating S2: BBAR coating
Optical Density	OD>6 at central wavelength ±2 nm
Transmission at Passbands	T_{ave}>90%
Laser Damage Treshold	>1 J/cm² 10 ns, 10 Hz at central wavelength



246-2506-532.
Typical transmission, design wavelength – 532 nm



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Typical OD, design wavelength – 532 nm

Optical Density	Central Wavelength, nm	Pass Bands, nm	FWHM, nm	Catalogue number	Price, EUR
6.0	488	400-471 + 504-700	15	**246-2506-488**	450
6.0	514	400-496 + 532-700	17	**246-2506-514**	450
6.0	532	400-517 + 548-710	17	**246-2506-532**	450
6.0	561	425-542 + 580-740	19	**246-2506-561**	450