## **OPTICAL FILTER COATINGS>>** Capabilities

DESCRIPTION	FILTERS FOR FLUO- RESCENCE / LIFE SCIENCE APPLICATIONS		HARD COATED BANDPASS FILTERS			HIGH-PRECISION EDGE FILTERS		
TYPES OF FILTERS	Fluorescence Bandpass Filters	Fluorescence Dichroic Filters	Narrow Bandpass Filters	Medium Bandpass Filters	Broad Bandpass Filters	Shortpass Filters	Longpass Filters	Dichroic Filters
TYPICAL SPECIFICATIONS	Transmission ≥ 95%	Transmission ≥ 95%	Transmission ≥ 95%			Transmission ≥ 95%		
	Blocking ≥ OD6.0	Reflection ≥ 98%	Blocking ≥ OD4.0			Blocking ≥ OD4.0		Reflection ≥ 98%
	Bandwidths between 10 - 80nm	Transmitted Wavefront Distortion (TWD) ≤ λ/4	Bandwidths between 5 and 20nm	Bandwidths between 25 and 50nm	Bandwidths ≥ 50nm	Slope Factor ≤1%		Transmitted Wavefront Distortion (TWD) ≤ /4
	Environmental Durability per MIL-STD-810F		Environmental Durability per MIL-STD-810F			Environmental Durability per MIL-STD-810F		
	Physical Durability per MIL-C- 48497A		Physical Durability per MIL-C-48497A			Physical Durability per MIL-C-48497A		
COMMENTS	Standard and custom designs for common fluorophores; integratable into fluorescence microscope cubes, medical and diagnostic instruments, and PCR devices		Standard and custom designs for common LED and laser light sources, fluorescent proteins, and elemental and chemical emission lines; integratable into spectroscopic instruments, machine vision equipment, and medical and diagnostic devices			Standard and custom cut wavelengths between 300nm and 10µm; ideal for spectral sorting and isolation, beam combining, and Raman detection; designs can be optimized for sharp transitions, deep rejection, broad transmission, and low GDD		

DESCRIPTION	OPTICAL NOTCH FILTERS		NEUTRAL DENSITY (ND) FILTERS			MACHINE VISION FILTERS		
TYPES OF FILTERS	Laser Line Notch Filters	Multi-Line Notch Filters	Reflective ND Filters	Non- Reflective ND Filters	Absorptive ND Filters	Bandpass Filters	Band Reject Filters	Polarizing Filters
TYPICAL SPECIFICATIONS	Blocking ≥ OD6.0		Optical Densities between 0.1 and 5.0			Common Machine Vision Filter Threads		
	Narrow FHWM	2, 3, and 4 Wavelength Designs	UV, VIS, NIR, LWIR, and Multi- Spectral Ranges	Reflection ≤ 2%	All SCHOTT and Hoya Glasses Available	Transmission ≥ 90%	Blocking ≥ OD4.0s	≥9,000:1 Extinction Ratio
	Broad Transmission Ranges	Transmitted Wavefront Distortion (TWD) ≤ 1	Low cost or high precision substrates	VIS and NIR Designs	Variety of AR Coating Options	Common LED Center Wavelengths	UV and/or NIR Cut	Linear or Circular Polarization
	Environmental Durability per MIL-STD-810F		Surface Quality 40-20	Surface Quality 60-40	Tightly controlled thickness, or optical density	Environmental Durability per MIL-STD-810F		Rotating Polarizers for Transmission Control
	Physical Durability per MIL-C- 48497A		Transmitted Wavefront Distortion (TWD) $\leq \lambda/4$	Low cost or high precision substrates	Melt certs available	Physical Durability per MIL-C-48497A		High Contrast, Transmission, or Temp. Options
COMMENTS	Standard and custom designs for deep rejection of common Nd:YAG, Yb:YAG, HeNe, Argon Ion, Fiber, Ti:Sapphire, and diode lasers		Standard and custom optical densities for even attenuation across a variety of spectral regions; standard regions include 400 - 700nm, 700 - 1100nm, 250 - 700nm, 190 - 1700nm, and 2.0 - 14.0µm			Standard and custom designs for common LEDs, laser wavelengths, and light sources used in machine vision applications; mounted in filter rings with threads available from M22.5 x 0.5 to M105.5 x 1.0, including common M25.5 x 0.5 and M30.5 x 0.5 options		

