

# TECHSPEC® FILTERS



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BANDPASS | EDGE | DICHROIC | NOTCH & MORE

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# TECHSPEC® HARD COATED BANDPASS INTERFERENCE FILTERS



- From Narrow Bandwidths for Life Science Lenses to Broad Bandwidths for Imaging and Lighting
- Available in UV, VIS, and IR Center Wavelengths
- High Transmission, OD 4 Blocking
- Long Lifetime, Extremely Durable

TECHSPEC® Hard Coated Bandpass Interference Filters are ideal for eliminating unwanted background noise and enhancing the signal to noise ratio for a range of applications including machine vision inspection, fluorescence microscopy, quantitative chemical applications, and a variety of diagnostic instrumentation. Unlike traditional filters, which require multiple substrates and coatings, these hard coated filters are fabricated using only a single substrate. This single substrate fabrication offers deeper blocking, higher transmission, and steeper slopes than traditional coated filters.

Diameter Tolerance (mm):	+0.0/-0.1
Mount Thickness (mm):	5
Surface Quality:	80-50
Blocking:	OD >4
CWL Tolerance (nm):	±2
FWHM Tolerance (nm):	±2
Typical Energy Density:	
Limit for 532nm Filter:	1 J/cm <sup>2</sup> @ 532nm, 10ns

## TECHSPEC® HARD COATED BANDPASS INTERFERENCE FILTERS

Filter Type	Range of CWL Options (nm)	Peak Transmission (%)	Blocking Range (nm)	Blocking	Diameters Available (mm)
10nm Bandpass Filters	310 - 1550	≥85	200 - 1800	OD ≥4	12.5, 25, 50
25nm Bandpass Filters	400 - 1550	≥90	200 - 1800	OD ≥4	12.5, 25, 50
50nm Bandpass Filters	400 - 1550	≥90	200 - 1800	OD ≥4	12.5, 25, 50

# TECHSPEC® NOTCH FILTERS



- OD 4 or 6 Rejection of Laser Wavelength
- Broad Transmission Range, Precision Blocking
- Ideal for Laser-Based Raman, Fluorescence, and Diagnostic Systems

Featuring deep blocking and broad transmission bands, TECHSPEC® Notch Filters are fabricated utilizing hard coating technology, guaranteeing durable coatings that will not degrade with time, temperature, or humidity. Each filter is mounted in a black anodized ring which has been engraved to ease filter handling, identification, and orientation. TECHSPEC® Notch Filters are ideal for applications requiring deep blocking of a narrow range, and broad transmission of other wavelengths.

	OD >4 Notch Filters	OD >6 Notch Filters	OD >6 Multi Notch Filters
Diameter Tolerance (mm):	+0.0/-0.1	+0.0/-0.1	+0.0/-0.1
Thickness (mm):	5.0 ± 0.1	3.5 ± 0.1	3.5 ± 0.1
Reflectivity @ CWL (%):	>99	>99.5	>99.5
Pass Band Transmission (%):	>90	>80%, 350 - 400nm >90%, 400 - 1200nm	>80%, 350 - 400nm >90%, 400 - 1200nm
Transmitted Wavefront (RMS):	1λ	<1λ	<1λ

## TECHSPEC® NOTCH FILTERS

\*Call for Availability

CWL (nm)	OD >4 Notch Filters			OD >6 Notch Filters						
	FWHM (nm)	Transmission Range (nm)	12.5mm Dia.	25mm Dia.	50mm Dia.	12.5mm Dia.	25mm Dia.	50mm Dia.		
355	17.8 ± 1.8	325 - 475	#67-106	#67-115	#67-124	-	*	*		
405	20.2 ± 2.0	325 - 540	#67-107	#67-116	#67-125	9.0	350 - 1200	#86-119	#86-124	#86-129
488	24.4 ± 2.4	365 - 650	#67-108	#67-117	#67-126	-	-	*	*	*
514.5	25.7 ± 2.6	385 - 685	#67-109	#67-118	#67-127	-	-	*	*	*
532	26.6 ± 2.7	400 - 700	#67-110	#67-119	#67-128	17.0	350 - 1200	#86-120	#86-125	#86-130
632.8	31.6 ± 3.2	475 - 845	#67-111	#67-120	#67-129	25.0	350 - 1200	#86-121	#86-126	#86-131
785	39.2 ± 3.9	585 - 1045	#67-112	#67-121	#67-130	39.0	350 - 1200	#86-122	#86-127	#86-132
808	40.0 ± 6.0	600 - 1070	#86-700	#86-702	#86-704	-	-	*	*	*
830	42.0 ± 6.0	625 - 1100	#86-701	#86-703	#86-705	-	-	*	*	*
980	49.0 ± 4.9	735 - 1300	#67-113	#67-122	#67-131	-	-	*	*	*
1064	53.2 ± 5.3	800 - 1400	#67-114	#67-123	#67-132	73.0	400 - 1200	#86-123	#86-128	#86-133

## TECHSPEC® OD 6 MULTI-NOTCH FILTERS FOR Nd:YAG LASERS

CWL x FWHM (nm)		Notch 3	Transmission Range (nm)	12.5mm Diameter	25mm Diameter	50mm Diameter
Notch 1	Notch 2			Stock No.	Stock No.	Stock No.
355 x 10	532 x 25	N/A	325 - 1200	#87-015	#87-019	#87-023
532 x 25	1064 x 50	N/A	400 - 1200	#87-017	#87-021	#87-025
355 x 10	532 x 25	1064 x 50	370 - 1200	#87-018	#87-022	#87-026

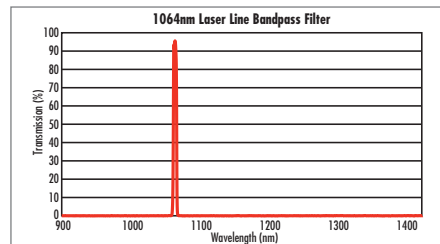
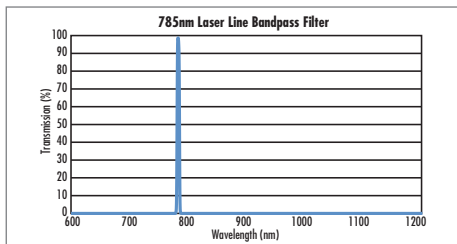
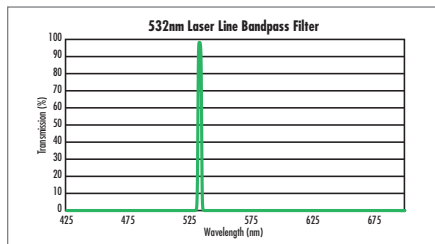
# TECHSPEC® HARD COATED LASER CLEAN-UP FILTERS

- Narrow Bandwidths for Gas and Solid State Lasers
- Broad Bandwidths for Laser Diode Clean-Up
- High Transmission, OD 4 and OD 6 Blocking

TECHSPEC® Hard Coated Laser Clean-Up Filters provide high transmission, deep blocking, and are perfectly tuned for today's high performance laser systems. The filters feature hard, durable coatings on a single substrate, ensuring reliable performance and extended lifetimes.



	OD >4 Laser Line Filters	OD >6 Laser Line Filters
Thickness (mm):	3.5 ±0.1	3.5 ±0.1
Diameter Tolerance (mm):	+0.0/-0.1	+0.0/-0.1
Clear Aperture (%):	>90	>90
Transmitted Wavefront (RMS):	$\lambda/4$	$\lambda/4$
Surface Quality:	60-40	60-40
Angle of Incidence (°):	0.0 ±5.0	0.0 ±2.0
Coating:	Hard Sputtered	Hard Sputtered



## TECHSPEC® OD 4 LASER CLEAN-UP FILTERS

CWL (nm)	Bandwidth (nm)	Transmission Color	Min. Transmission (%)	Blocking Range (nm)	12.5mm Diameter	25mm Diameter	50mm Diameter
					Stock No.	Stock No.	Stock No.
488	3.0	●	>80	350 - 483nm & 493 - 650nm	#68-840	#68-872	#68-904
514	3.0	●	>80	400 - 509nm & 520 - 700nm	#68-842	#68-874	#68-906
532	3.0	●	>80	400 - 527nm & 537 - 700nm	#68-843	#68-875	#68-907
632	3.0	●	>80	500 - 627nm & 639 - 900nm	#68-847	#68-879	#68-911
785	3.0	●	>80	650 - 777nm & 793 - 1100nm	#68-852	#68-884	#68-916
808	3.0	●	>80	650 - 800nm & 816 - 1100nm	#68-854	#68-886	#68-918
830	3.0	●	>80	700 - 821nm & 839 - 1200nm	#68-855	#68-887	#68-919
980	4.0	●	>80	850 - 970nm & 990 - 1300nm	#68-857	#68-889	#68-921
1064	5.0	●	>80	900 - 1054nm & 1074 - 1400nm	#68-859	#68-891	#68-923

## TECHSPEC® OD 6 LASER CLEAN-UP FILTERS

CWL (nm)	Bandwidth (nm)	Transmission Color	Min. Transmission (%)	Blocking Range		12.5mm Diameter	25mm Diameter
				OD 5 Range (nm)	OD 6 Range (nm)	Stock No.	Stock No.
325	1.2	●	≥80	291 - 321 & 328 - 380	299 - 320 & 329 - 357	#68-926	#68-957
355	1.3	●	≥80	314 - 351 & 358 - 422	326 - 349 & 360 - 390	#68-927	#68-958
488	1.9	●	≥90	415 - 483 & 492 - 625	449 - 480 & 495 - 536	#68-936	#68-967
514	2.0	●	≥90	434 - 509 & 519 - 669	473 - 506 & 522 - 566	#68-938	#68-969
532	2.0	●	≥90	447 - 527 & 537 - 699	489 - 524 & 540 - 585	#68-939	#68-970
632	2.4	●	≥90	515 - 626 & 639 - 884	582 - 623 & 642 - 696	#68-943	#68-974
785	3.0	●	≥90	612 - 777 & 793 - 1214	722 - 773 & 797 - 864	#68-947	#68-978
808	3.1	●	≥90	625 - 799 & 816 - 1033	743 - 795 & 820 - 888	#68-949	#68-980
830	3.2	●	≥90	639 - 821 & 838 - 1067	763 - 817 & 842 - 913	#68-950	#68-981
980	3.7	●	≥90	724 - 970 & 989 - 1332	901 - 965 & 994 - 1078	#68-952	#68-983
1064	4.0	●	≥90	979 - 1053 & 1075 - 1429	979 - 1047 & 1080 - 1170	#68-954	#68-985



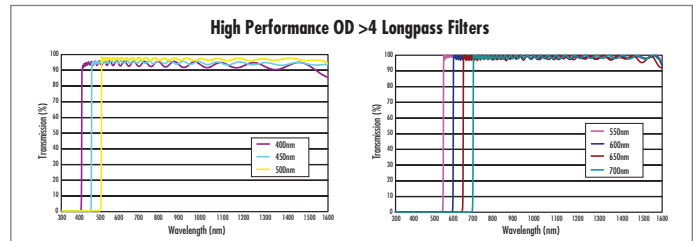
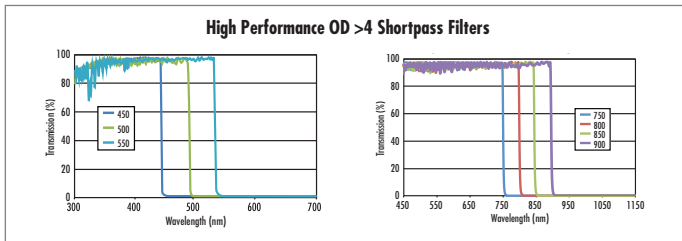
- OD >4 and OD >2 Blocking Options
- High Rejection / Transmission Efficiency
- Shortpass and Longpass Options Available

TECHSPEC® High Performance Edge Filters feature OD >4 or OD >2 blocking, high transmission, and steep slopes to ensure maximum efficiency. Both shortpass and longpass filters are available across the entire visible and NIR spectrum as standard products. All specifications are customizable for prototyping and high volume orders.

**Substrate:** UV Grade Fused Silica  
**Surface Quality:** 40-20  
**Wavefront Distortion:**  $\leq \lambda/4$  RMS @ 633nm

**Cut-On/Cut-Off Slope (%):**  
**OD >4 Filters:** <1  
**OD >2 Filters:** <3

**Pass Band Transmission (%):**  
**OD >4 Filters:**  $\geq 91$   
**OD >2 Filters:**  $\geq 85$



TECHSPEC® OD 4 SHORTPASS FILTERS					
Cut-Off Wavelength (nm)	Transmission Band (nm)	Rejection Band (nm)	12.5mm Dia.	25mm Dia.	50mm Dia.
400	300 - 392	410 - 610	#84-689	#84-702	#84-715
425	300 - 417	435 - 635	#84-690	#84-703	#84-716
450	300 - 441	460 - 660	#84-691	#84-704	#84-717
475	300 - 466	485 - 685	#84-692	#84-705	#84-718
500	300 - 490	512 - 715	#84-693	#84-706	#84-719
525	300 - 515	537 - 740	#84-694	#84-707	#84-720
550	350 - 539	562 - 825	#84-695	#84-708	#84-721
575	350 - 564	587 - 850	#84-696	#84-709	#84-722
600	350 - 587	614 - 900	#84-697	#84-710	#84-723
625	350 - 612	639 - 925	#84-698	#84-711	#84-724
650	350 - 636	665 - 960	#84-699	#84-712	#84-725
675	350 - 661	690 - 1000	#84-700	#84-713	#84-726
700	400 - 685	715 - 1050	#84-701	#84-714	#84-727
725	400 - 710	740 - 1090	#86-095	#86-103	#86-111
750	400 - 740	775 - 1125	#86-096	#86-104	#86-112
775	400 - 760	795 - 1155	#86-097	#86-105	#86-113
800	400 - 790	825 - 1190	#86-098	#86-106	#86-114
825	400 - 810	850 - 1190	#86-099	#86-107	#86-115
850	400 - 840	880 - 1190	#86-100	#86-108	#86-116
875	425 - 860	905 - 1220	#86-101	#86-109	#86-117
900	425 - 890	930 - 1250	#86-102	#86-110	#86-118
925	445 - 910	955 - 1290	#86-103	#86-111	#86-119
950	450 - 939	980 - 1325	#86-104	#86-112	#86-120
975	465 - 960	1005 - 1365	#86-105	#86-113	#86-121
1000	465 - 988	1035 - 1400	#86-106	#86-114	#86-122
1025	490 - 1010	1060 - 1430	#86-107	#86-115	#86-123
1050	485 - 1036	1085 - 1460	#86-108	#86-116	#86-124
1075	505 - 1060	1110 - 1495	#86-109	#86-117	#86-125
1100	510 - 1085	1140 - 1530	#86-110	#86-118	#86-126
*1150	535 - 1135	1190 - 1650	#89-669	#89-677	#89-685
*1200	550 - 1185	1240 - 1650	#89-670	#89-678	#89-686
*1250	575 - 1235	1290 - 1650	#89-671	#89-679	#89-687
*1300	600 - 1285	1340 - 1650	#89-672	#89-680	#89-688

\* Standard Thickness of 3.0mm

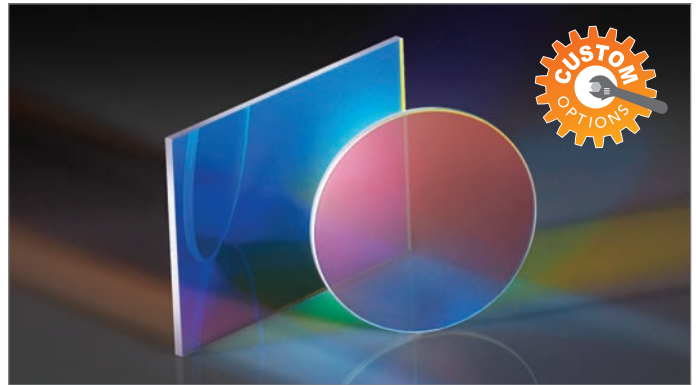
TECHSPEC® OD 4 LONGPASS FILTERS					
Cut-On Wavelength (nm)	Rejection Band (nm)	Transmission Band (nm)	12.5mm Dia.	25mm Dia.	50mm Dia.
325*	200 - 320	333 - 1650	#34-295	#34-296	#34-297
350*	200 - 345	358 - 1650	#34-298	#34-299	#34-300
375*	200 - 370	383 - 1650	#34-301	#34-302	#34-303
400	200 - 390	408 - 1650	#62-974	#62-981	#84-754
425	200 - 415	433 - 1650	#84-736	#84-742	#84-748
450	200 - 440	458 - 1650	#62-975	#62-982	#84-755
475	200 - 465	483 - 1650	#84-737	#84-743	#84-749
500	200 - 490	508 - 1650	#62-976	#62-983	#84-756
525	200 - 515	534 - 1650	#84-738	#84-744	#84-750
550	200 - 539	560 - 1650	#62-977	#62-984	#84-757
575	200 - 564	585 - 1650	#84-739	#84-745	#84-751
600	200 - 588	610 - 1650	#62-978	#62-985	#84-758
625	200 - 613	635 - 1650	#84-740	#84-746	#84-752
650	200 - 637	660 - 1650	#62-979	#62-986	#84-759
675	200 - 662	685 - 1650	#84-741	#84-747	#84-753
700	200 - 686	710 - 1650	#62-980	#62-987	#84-760
725	200 - 705	735 - 1650	#86-060	#86-068	#86-076
750	200 - 735	765 - 1650	#66-226	#66-234	#84-761
775	200 - 760	790 - 1650	#86-061	#86-069	#86-077
800	200 - 785	815 - 1650	#66-227	#66-235	#84-762
825	200 - 805	840 - 1650	#86-062	#86-070	#86-078
850	200 - 835	865 - 1650	#66-228	#66-236	#84-763
875	200 - 860	890 - 1650	#86-063	#86-071	#86-079
900	200 - 880	915 - 1650	#66-229	#66-237	#84-764
925	200 - 905	940 - 1650	#86-064	#86-072	#86-080
950	200 - 930	965 - 1650	#66-230	#66-238	#84-765
975	200 - 955	990 - 1650	#86-065	#86-073	#86-081
1000	200 - 980	1020 - 1650	#66-231	#66-239	#84-766
1025	200 - 1005	1045 - 1650	#86-066	#86-074	#86-082
1050	200 - 1030	1070 - 1650	#66-232	#66-240	#84-767
1075	200 - 1055	1095 - 1650	#86-067	#86-075	#86-083
1100	200 - 1080	1120 - 1650	#66-233	#66-241	#84-768
1150**	200 - 1130	1170 - 1650	#89-657	#89-661	#89-665
1200**	200 - 1180	1220 - 1650	#89-658	#89-662	#89-666
1250**	200 - 1230	1270 - 1650	#89-659	#89-663	#89-667
1300**	200 - 1280	1320 - 1650	#89-660	#89-664	#89-668

\* All sizes are 1.5mm thick

\*\* All sizes are 3.0mm thick

# TECHSPEC® DICHROIC EDGE FILTERS

- Ideal for Fluorescence or Multispectral Imaging
- Sharp Cut-Off or Cut-On Wavelengths
- Multi-Band Options Available

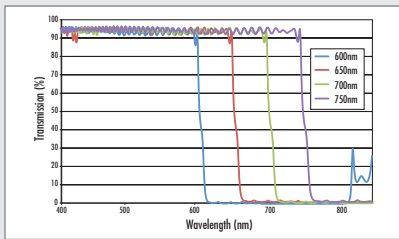


TECHSPEC® Dichroic Edge Filters are designed for a 45° angle of incidence. The rejected light is reflected at 90°, making these filters ideal for use in fluorescence applications or as spectral beamsplitters. The filters feature low polarization dependence, broad spectral ranges, and a precision fused silica substrate.

<b>Substrate:</b>	Fused Silica
<b>Transmission Band (%):</b>	$T_{avg} > 85$
<b>Reflection Band (%):</b>	$R_{avg} > 97$
<b>Wavefront Distortion:</b>	$\lambda/4$
<b>Slope Factor (%):</b>	3
<b>Sizes Available (mm):</b>	12.5 Diameter, 12.5 x 17.6 25.0 Diameter, 25.2 x 35.6

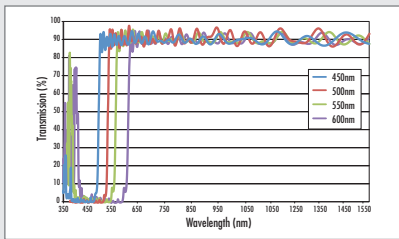
To Download **Transmission Curves**  
For All TECHSPEC® Filters  
Visit [www.edmundoptics.com/filters](http://www.edmundoptics.com/filters)

## DICHROIC SHORTPASS FILTERS



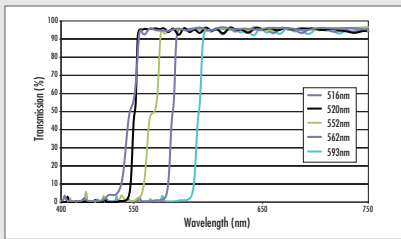
Cut-Off Wavelength (nm)	Transmission Band (nm)	Reflection Band (nm)
400	325 - 385	420 - 485
450	325 - 430	470 - 545
500	325 - 480	520 - 610
550	400 - 530	575 - 725
600	400 - 580	625 - 795
650	400 - 630	675 - 850
700	400 - 680	725 - 900
750	400 - 725	800 - 990
800	400 - 775	850 - 1050
850	400 - 820	910 - 1110
900	465 - 865	960 - 1170
950	495 - 912	997 - 1235
1000	520 - 960	1050 - 1300
1050	546 - 1008	1102 - 1365
1100	572 - 1056	1155 - 1430
1150	598 - 1104	1207 - 1495
1200	624 - 1152	1260 - 1560

## DICHROIC LONGPASS FILTERS



Cut-On Wavelength (nm)	Reflection Band (nm)	Transmission Band (nm)
400	350 - 375	420 - 1600
450	350 - 430	470 - 1600
500	350 - 480	520 - 1600
550	415 - 515	575 - 1600
600	460 - 570	625 - 1600
650	495 - 610	675 - 1600
700	535 - 660	725 - 1600
750	565 - 715	780 - 1600
800	600 - 760	830 - 1600
850	635 - 805	880 - 1600
900	675 - 855	935 - 1600
950	715 - 900	985 - 1600
1000	750 - 950	1035 - 1600
1050	790 - 1000	1085 - 1600
1100	825 - 1045	1135 - 1600
1150	875 - 1095	1190 - 1600
1200	920 - 1160	1240 - 1600

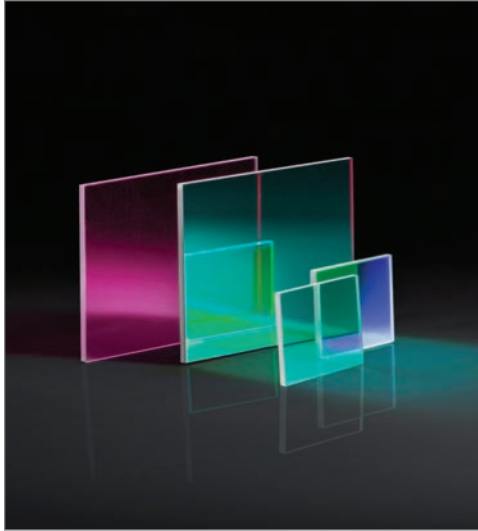
## FLUORESCENCE DICHROIC FILTERS



Cut-On Wavelength (nm)	Reflection Band (nm)	Transmission Band (nm)
409	325 - 404	415 - 850
458	415 - 450	467 - 600
482	350 - 470	490 - 850
495	435 - 488	502 - 730
506	440 - 500	513 - 730
510	350 - 488	515 - 850
516	350 - 510	520 - 850
520	475 - 512	528 - 730
552	350 - 544	558 - 850
562	490 - 554	570 - 750
593	520 - 585	600 - 800
605	350 - 596	612 - 950
660	580 - 651	670 - 800
685	590 - 676	695 - 810
801	450 - 790	814 - 1100
-	-	-
-	-	-

CAN'T FIND THE FILTER YOU NEED? Call Us Today!

# TECHSPEC® HIGH PERFORMANCE FLUORESCENCE DICHROIC FILTERS



- Improved Flatness, Transmitted Wavefront, and Surface Quality
- Ideal for Fluorescence Microscopy or High Magnification Imaging Applications
- Most Popular Cut-On Wavelengths of Fluorescence and Longpass Dichroic Filters

Our TECHSPEC® High Performance Fluorescence Dichroic Filters feature the same broad, flat transmission and reflection ranges as our popular TECHSPEC® Fluorescence Dichroic Filters, but have improved physical parameters. Special attention to surface flatness, transmitted wavefront, and surface quality have resulted in our highest level of precision yet on a filter. These rectangular filters fit into most common Nikon, Zeiss, and Olympus fluorescence microscopes. High Performance Fluorescence Dichroic Filters are a perfect complement to our TECHSPEC® Fluorescence Bandpass Filters. For specific wavelength or size requirements, numerous custom options are available.

Substrate:	UV Grade Fused Silica
Dimensional Tolerance (mm):	+0.0/-0.10
Thickness (mm):	1.05 ±0.1
Transmitted Wavefront (RMS):	$\lambda/10$
Surface Flatness (P-V):	$\lambda/2$
Surface Quality:	40-20
Angle of Incidence:	45°
Reflection Band (%):	$R_{avg} >98$
Transmission Band (%):	$T_{avg} >90$

## TECHSPEC® HIGH PERFORMANCE FLUORESCENCE DICHROIC FILTERS

Cut-on Wavelength (nm)	Reflection Band (nm)	Transmission Band (nm)	12.5 x 17.6mm	25.2 x 35.6mm
			Stock No.	Stock No.
409	325 - 404	415 - 850	#34-724	#34-725
435	325 - 425	444 - 850	#34-726	#34-727
450	350 - 430	457 - 850	#34-728	#34-729
482	350 - 470	490 - 850	#34-730	#34-731
495	435 - 488	502 - 730	#34-732	#34-733
506	440 - 500	513 - 730	#34-734	#34-735
552	350 - 544	558 - 850	#34-736	#34-737
600	460 - 570	607 - 900	#34-738	#34-739
605	350 - 596	612 - 950	#34-740	#34-741
660	580 - 651	670 - 800	#34-742	#34-743
750	565 - 715	757 - 950	#34-744	#34-745
800	600 - 760	807 - 1000	#34-746	#34-747
850	635 - 805	857 - 1050	#34-748	#34-749

# TECHSPEC® NEUTRAL DENSITY FILTERS



- Maximum Accuracy & Neutrality at Moderate Price
- Spectrally Flat
- Use Stacks to Create Intermediate Density Values
- Other ND Filters Available - Absorptive, Non Reflective, and More

These Neutral Density Filters feature constant density values across the surface with varying transmission to reflection ratios based on density selection. In stacks, the total density is the sum of each filter's density. ND filters are used primarily for the attenuation of light over a wide spectral range, but are often used in laser and photometer applications, where excessive power can cause damage or inaccurate results. Orient mirrored side toward source at 0° angle of incidence.

Substrate:	Float Glass
Dimensional Tolerance (mm):	±0.5
Wavelength Range (nm):	400 - 700
Parallelism (arcmin):	≤3
Thickness (mm):	1.5 nominal
Surface Quality:	80-50
Neutrality: OD ≤0.2:	±2% Transmission
OD >0.2:	±5% of Density
Coating:	First Surface Inconel
Clear Aperture (%):	80

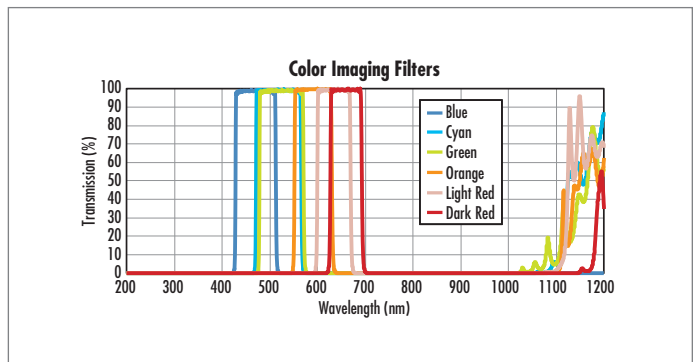
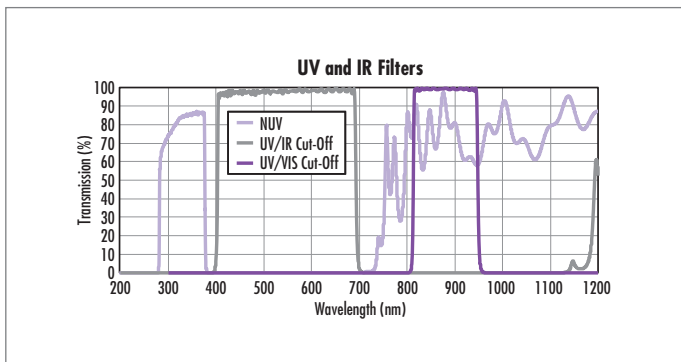
## TECHSPEC® REFLECTIVE NEUTRAL DENSITY FILTERS

Optical Density	Transmission (%)	Reflection (%)	12.5mm Diameter	25mm Diameter	50 x 50mm
0.10	79	10	#64-125	#64-131	#64-137
0.15	70	12	#64-126	#64-132	#64-138
0.20	63	14	#64-127	#64-133	#64-139
0.30	50	21	#46-131	#30-933	#43-813
0.40	40	25	#64-128	#64-134	#64-140
0.50	32	30	#46-132	#30-934	#43-814
0.60	25	37	#49-071	#49-072	#49-073
0.70	20	42	#64-130	#64-136	#64-142
0.90	12.5	50	#49-074	#49-075	#49-076
1.00	10	45	#46-133	#30-935	#43-815
1.30	5.0	50	#46-134	#30-936	#46-123
1.50	3.2	55	#46-135	#30-937	#46-124
2.00	1.0	55	#46-136	#30-938	#43-816
2.50	0.3	55	#46-137	#43-811	#46-125
3.00	0.1	55	#46-138	#43-812	#46-126

# TECHSPEC® IMAGING FILTERS

- Optimized for Use with Popular LEDs
- Multiple Mounting Sizes and Threads Available to Ease System Compatibility
- Extremely High and Flat Transmission Profiles Provide Even Illumination

TECHSPEC® Imaging Filters are designed and manufactured for the most demanding machine vision and imaging applications. TECHSPEC® Imaging Filters pass or block specific UV, visible, or IR wavelengths and provide wide angles of incidence. Compared to traditional filters, these hard coated filters provide superior blocking of unwanted light and greater durability for longer lifetimes. Additionally, these filters can be used to improve image contrast and isolate spectral regions and colors.



DIMENSIONS						
Filter Thread	Outer Diameter (mm)	Front Thread (to allow for stacking)	Filter Diameter (mm)	Thickness (mm)	Thread Length (mm)	Clear Aperture CA (mm)
M22.5 x 0.50	24.5	M22.5 x 0.50	20.1	4.5	2.0	18.5
M25.5 x 0.50	27.5	M25.5 x 0.50	23.0	4.5	2.0	21.5
M30.5 x 0.50	32.5	M30.5 x 0.50	28.0	5.0	2.0	26.5
M34.0 x 0.50	36.0	M34.0 x 0.50	31.6	5.0	1.5	30.0
M35.5 x 0.50	37.0	M35.5 x 0.50	33.1	5.0	2.0	31.5
M40.5 x 0.50	42.0	M40.5 x 0.50	38.0	5.0	2.0	36.5
M43.0 x 0.75	45.0	M43.0 x 0.75	40.2	5.0	2.0	39.2
M46.0 x 0.75	48.0	M46.0 x 0.75	43.2	4.8	2.2	41.5
M55.0 x 0.75	57.0	M55.0 x 0.75	52.2	4.8	2.2	50.5
M62.0 x 0.75	65.0	M62.0 x 0.75	59.2	5.5	2.5	57.5

COATING SPECIFICATIONS					
Filter	Center Wavelength (nm)	Full Width Half Max (nm)	Average Transmission (%)	Absolute Blocking Range (nm)	
				OD ≥3	OD ≥4
NUV	330	95	74	400 - 650	200 - 250
Blue	470	85	95	200 - 400	550 - 1200
Cyan	518	95	89	600 - 1000	200 - 450
Green	524	92	94	200 - 450	600 - 1000
UV/IR Cut-Off	548	290	95	200 - 370	750 - 1100
Orange	590	79	89	700 - 1050	200 - 500
Light Red	634	70	93	200 - 550	700 - 1050
Dark Red	660	66	94	200 - 550	720 - 1120
UV/VIS Cut-Off	880	135	96	200 - 750	1000 - 1200

TECHSPEC® IMAGING FILTERS									
Filter Thread	NUV	Blue	Cyan	Green	UV/IR Cut-Off	Orange	Light Red	Dark Red	UV/VIS Cut-Off
	Stock No.	Stock No.	Stock No.	Stock No.	Stock No.	Stock No.	Stock No.	Stock No.	Stock No.
M22.5 x 0.50	#89-753	#89-763	#89-773	#89-783	#89-793	#89-803	#89-813	#89-823	#89-833
M25.5 x 0.50	#89-754	#89-764	#89-774	#89-784	#89-794	#89-804	#89-814	#89-824	#89-834
M30.5 x 0.50	#89-755	#89-765	#89-775	#89-785	#89-795	#89-805	#89-815	#89-825	#89-835
M34.0 x 0.50	#89-756	#89-766	#89-776	#89-786	#89-796	#89-806	#89-816	#89-826	#89-836
M35.5 x 0.50	#89-757	#89-767	#89-777	#89-787	#89-797	#89-807	#89-817	#89-827	#89-837
M40.5 x 0.50	#89-758	#89-768	#89-778	#89-788	#89-798	#89-808	#89-818	#89-828	#89-838
M43.0 x 0.75	#89-759	#89-769	#89-779	#89-789	#89-799	#89-809	#89-819	#89-829	#89-839
M46.0 x 0.75	#89-760	#89-770	#89-780	#89-790	#89-800	#89-810	#89-820	#89-830	#89-840
M55.0 x 0.75	#89-761	#89-771	#89-781	#89-791	#89-801	#89-811	#89-821	#89-831	#89-841
M62.0 x 0.75	#89-762	#89-772	#89-782	#89-792	#89-802	#89-812	#89-822	#89-832	#89-842

**FILTER CAPABILITIES**

- Durable, Hard Coated, Single Substrate Filters
- High Transmission, Deep Blocking, Steep Slopes
- Custom Designs - Prototype and Production Volumes

Edmund Optics® provides precision filters for the most demanding applications. With ultra-durable coatings deposited on precision substrates, our filter designs challenge the most sophisticated metrology available today.

Filter coatings can be designed for applications where high optical density, high transmission, and steep slope transitions are all key features. Our coating capabilities cover the entire range of filter designs including shortpass, longpass, laser line bandpass, fluorescence bandpass, dichroic, notch filters and many more. Custom filters are available for both large manufacturing needs and prototype volumes.

**Contact us for more information or to arrange a quote.**

FILTER COATING CAPABILITIES	
Description	
Dimensions (Diameter or Square)	2 - 1000mm
Substrates	All Glass Types
Spectral Ranges	193nm - 14µm
Edge Steepness (T <sub>50%</sub> to OD >4)	<0.5%
Spectral Edge Tolerance	<1% Deviation, <0.2% Special Cases
Blocking	>OD 7, Measured
Neutral Density Tolerance	OD ±5%
Center Wavelength (CWL)	±1nm
Bandwidth	1nm - Broadband
Transmission	>95%, Typical
Reflection	0.1 - 99.95%
Polarization (S:P)	10,000:1
Laser Damage Threshold	Up to 20 J/cm <sup>2</sup> @ 20ns Pulses
Durability	MIL-STD-810F, Section 507.4, MIL-C-48497A, Section 3.4.1
Parallelism	1 arcsec
Surface Quality	20-10

**TECHSPEC® FLUORESCENCE FILTER SETS**



- Excitation, Emission, and Dichroic Filters and Fluorescence Imaging
- >93% Transmission and OD 6 Blocking for Maximum Brightness and Contrast
- Hard Sputtered Coatings on Single Substrate
- Individual Filters Also Available

	Excitation and Emission	Dichroic
Filter Dimensions (mm):	25.0 + 0.0/-0.1	25.2 x 35.6 + 0.0/-0.1
Thickness (mm):	3.5 ±0.1	1.05 ±0.1
Clear Aperture (mm):	22.0	22.0 x 30.0
Transmitted Wavefront (RMS):	<λ/4	<1λ
Angle of Incidence (°):	0.0 ±5.0	45.0 ±1.0

To View All **Fluorescence Filter Sets**,  
Visit [www.edmundoptics.com/filter-sets](http://www.edmundoptics.com/filter-sets)

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