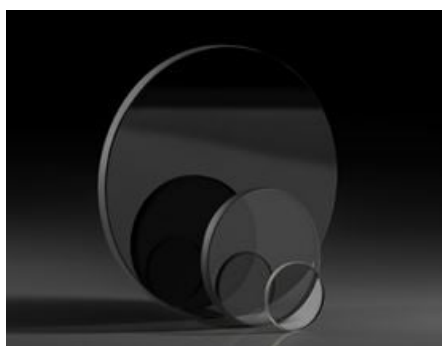


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Anti-Reflection (AR) Coated HOYA Absorptive Neutral Density (ND) Filters

See More by [Hoya](#)



- Optical Densities from 0.1 to 4.0
- VIS 0°, NIR I, and NIR II Coating Options
- 12.5, 25, and 50mm Diameter Sizes
- Uncoated [HOYA](#) or [SCHOTT](#) ND Filters Also Available

Common Specifications

Physical & Mechanical Properties

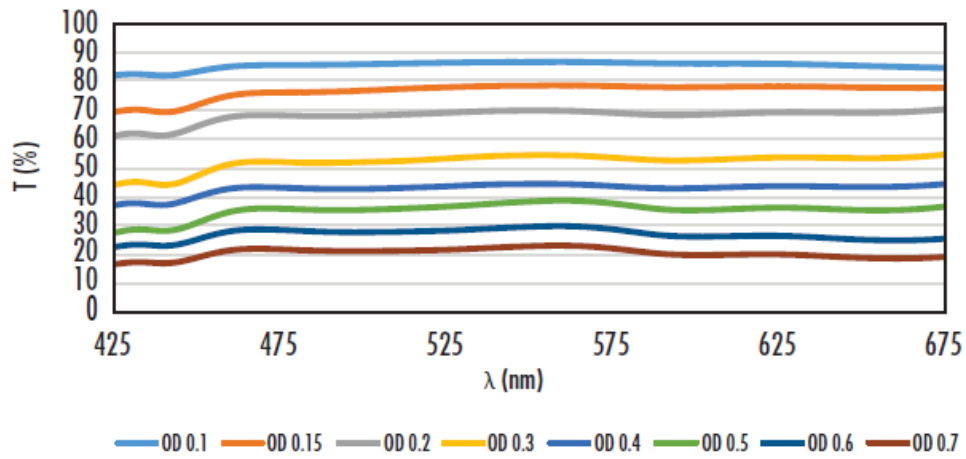
Thickness Tolerance (mm):	±0.5	Dimensional Tolerance (mm):	±0.1
Parallelism (mm):	<0.02		

Optical Properties

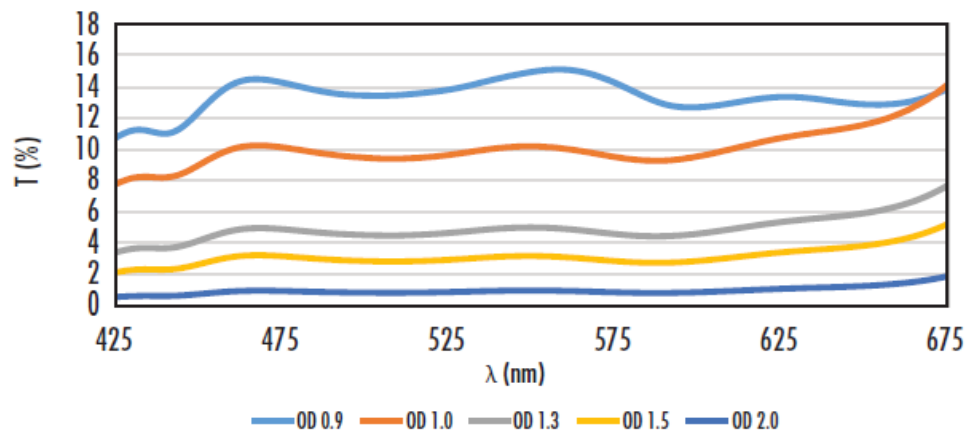
Substrate:	ND Filter Glass		
Surface Quality:	80-50	Blocking Wavelength Range (nm):	400 - 700

Technical Information

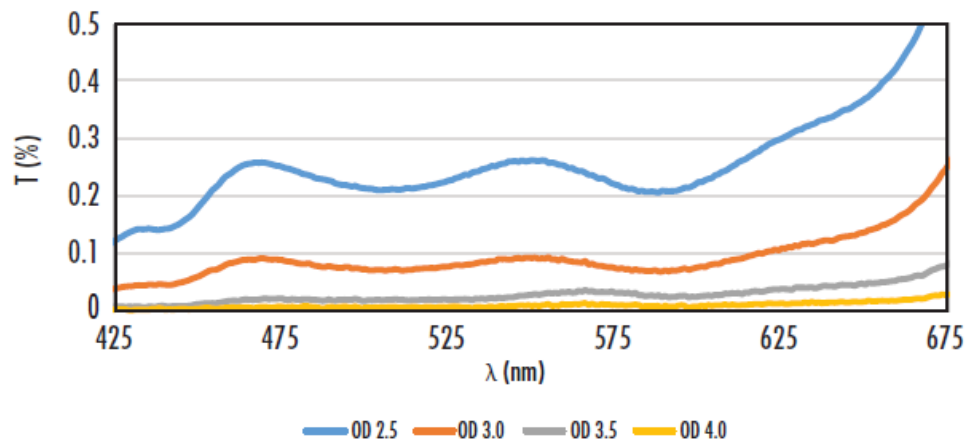
VIS 0° Coated HOYA ND Filters



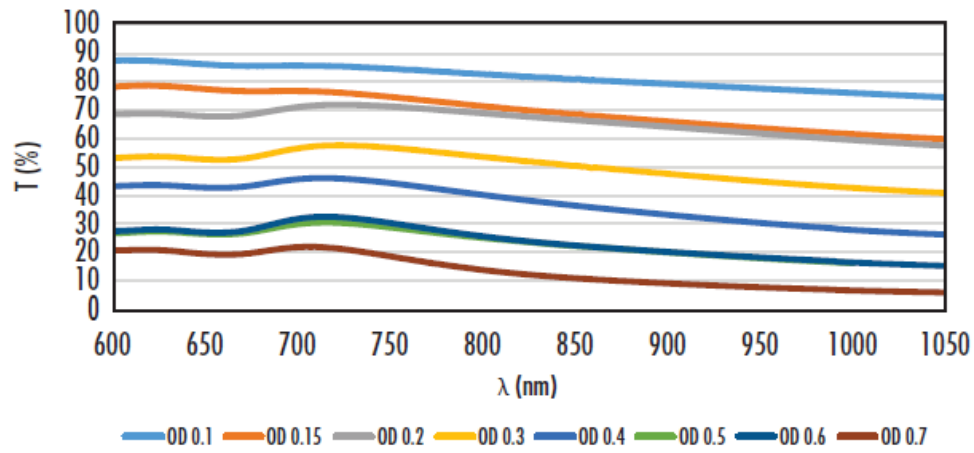
VIS 0° Coated HOYA ND Filters



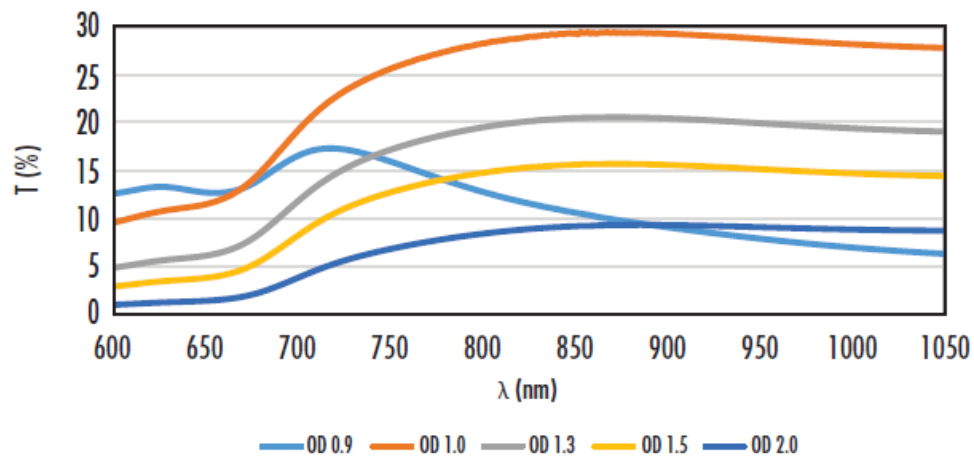
VIS 0° Coated HOYA ND Filters



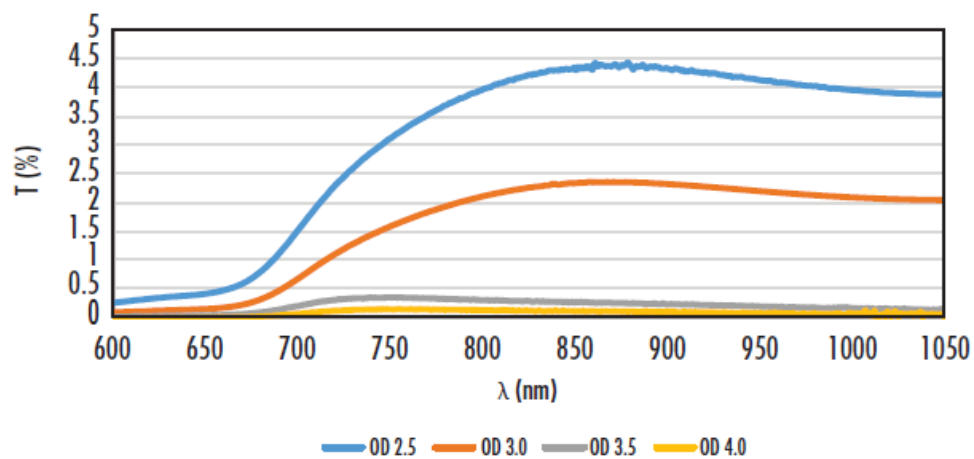
NIR I Coated HOYA ND Filters



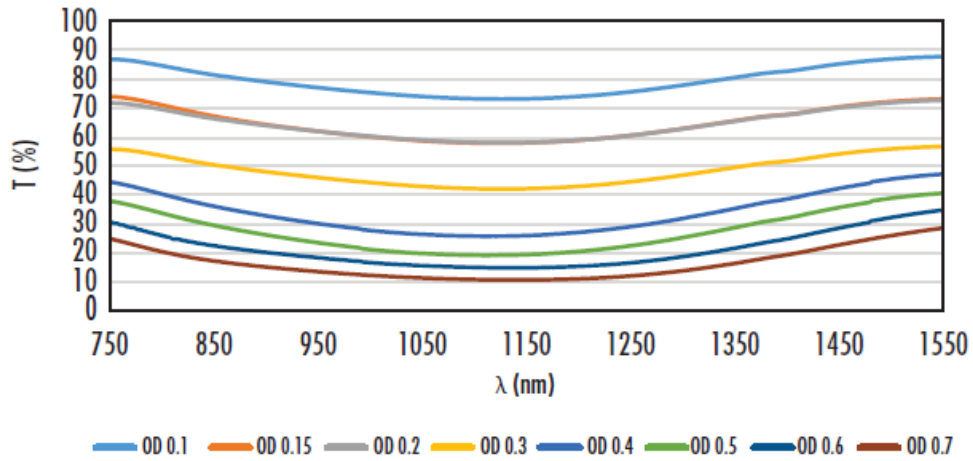
NIR I Coated HOYA ND Filters



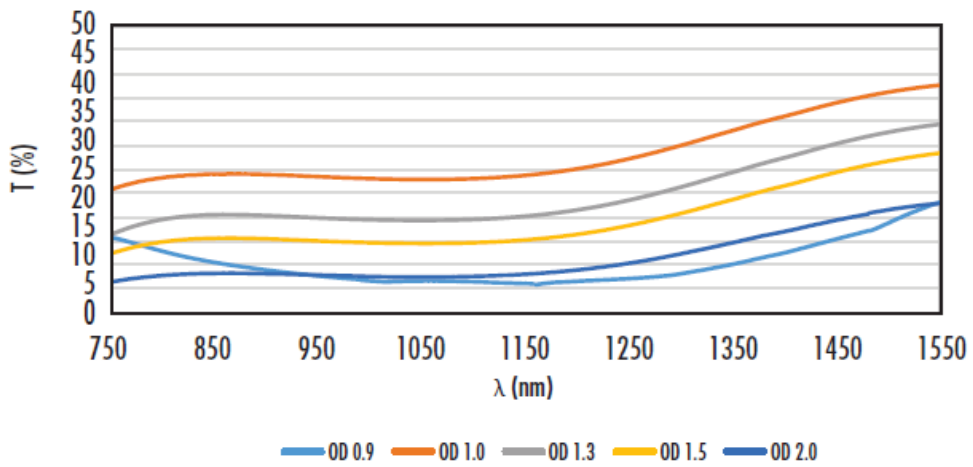
NIR I Coated HOYA ND Filters



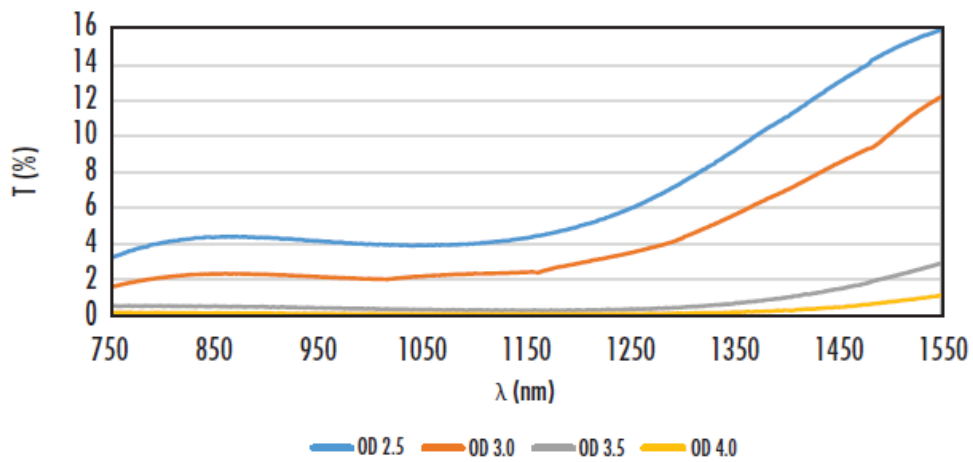
NIR II Coated HOYA ND Filters



NIR II Coated HOYA ND Filters



NIR II Coated HOYA ND Filters



Products

Dia. (mm)	Coating	Optical Density OD (Average)	Nominal OD @ Center of Coating	Wavelength Range (nm)	Stock Number	Price	Buy
12.50	VIS 0° (425- 675nm)	0.1	0.08	425 - 675	#13-078	€55,00 Qty 11+ €48,00	3-4 days
25.00	VIS 0° (425- 675nm)	0.1	0.08	425 - 675	#13-095	€76,00 Qty 11+ €68,00	In Stock
50.00	VIS 0° (425- 675nm)	0.1	0.08	425 - 675	#13-112	€162,00 Qty 11+ €142,00	3-4 days
12.50	VIS 0° (425- 675nm)	0.15	0.13	425 - 675	#13-079	€55,00 Qty 11+ €48,00	3-4 days
25.00	VIS 0° (425- 675nm)	0.15	0.13	425 - 675	#13-096	€76,00 Qty 11+ €68,00	3-4 days
50.00	VIS 0° (425- 675nm)	0.15	0.13	425 - 675	#13-113	€162,00 Qty 11+ €142,00	Contact Us
12.50	VIS 0° (425- 675nm)	0.2	0.18	425 - 675	#13-080	€55,00 Qty 11+ €48,00	3-4 days
25.00	VIS 0° (425- 675nm)	0.2	0.18	425 - 675	#13-097	€76,00 Qty 11+ €68,00	In Stock
50.00	VIS 0° (425- 675nm)	0.2	0.18	425 - 675	#13-114	€162,00 Qty 11+ €142,00	3-4 days
12.50	VIS 0° (425- 675nm)	0.3	0.28	425 - 675	#13-081	€55,00 Qty 11+ €48,00	3-4 days
25.00	VIS 0° (425- 675nm)	0.3	0.28	425 - 675	#13-098	€76,00 Qty 11+ €68,00	In Stock

50.00	VIS 0° (425-675nm)	0.3	0.28	425 - 675	#13-115	€162,00 Qty 11+ €142,00	3-4 days
12.50	VIS 0° (425-675nm)	0.4	0.35	425 - 675	#13-082	€55,00 Qty 11+ €48,00	3-4 days
25.00	VIS 0° (425-675nm)	0.4	0.35	425 - 675	#13-099	€76,00 Qty 11+ €68,00	In Stock
50.00	VIS 0° (425-675nm)	0.4	0.35	425 - 675	#13-116	€162,00 Qty 11+ €142,00	3-4 days
12.50	VIS 0° (425-675nm)	0.5	0.43	425 - 675	#13-083	€55,00 Qty 11+ €48,00	3-4 days
25.00	VIS 0° (425-675nm)	0.5	0.43	425 - 675	#13-100	€76,00 Qty 11+ €68,00	In Stock
50.00	VIS 0° (425-675nm)	0.5	0.43	425 - 675	#13-117	€162,00 Qty 11+ €142,00	3-4 days
12.50	VIS 0° (425-675nm)	0.6	0.53	425 - 675	#13-084	€55,00 Qty 11+ €48,00	3-4 days
25.00	VIS 0° (425-675nm)	0.6	0.53	425 - 675	#13-101	€76,00 Qty 11+ €68,00	In Stock
50.00	VIS 0° (425-675nm)	0.6	0.53	425 - 675	#13-118	€162,00 Qty 11+ €142,00	3-4 days
12.50	VIS 0° (425-675nm)	0.7	0.63	425 - 675	#13-085	€55,00 Qty 11+ €48,00	3-4 days
25.00	VIS 0° (425-675nm)	0.7	0.63	425 - 675	#13-102	€76,00 Qty 11+ €68,00	3-4 days
50.00	VIS 0° (425-675nm)	0.7	0.63	425 - 675	#13-119	€162,00 Qty 11+ €142,00	3-4 days
12.50	VIS 0° (425-675nm)	0.9	0.86	425 - 675	#13-086	€55,00 Qty 11+ €48,00	3-4 days

25.00	VIS 0° (425-675nm)	0.9	0.86	425 - 675	#13-103	€76,00 Qty 11+ €68,00	3-4 days
50.00	VIS 0° (425-675nm)	0.9	0.86	425 - 675	#13-120	€162,00 Qty 11+ €142,00	3-4 days
12.50	VIS 0° (425-675nm)	1	0.94	425 - 675	#13-087	€55,00 Qty 11+ €48,00	3-4 days
25.00	VIS 0° (425-675nm)	1	0.94	425 - 675	#13-104	€76,00 Qty 11+ €68,00	In Stock
50.00	VIS 0° (425-675nm)	1	0.94	425 - 675	#13-121	€162,00 Qty 11+ €142,00	3-4 days
12.50	VIS 0° (425-675nm)	1.3	1.35	425 - 675	#13-088	€55,00 Qty 11+ €48,00	3-4 days
25.00	VIS 0° (425-675nm)	1.3	1.35	425 - 675	#13-105	€76,00 Qty 11+ €68,00	3-4 days
50.00	VIS 0° (425-675nm)	1.3	1.35	425 - 675	#13-122	€162,00 Qty 11+ €142,00	3-4 days
12.50	VIS 0° (425-675nm)	1.5	1.40	425 - 675	#13-089	€55,00 Qty 11+ €48,00	In Stock
25.00	VIS 0° (425-675nm)	1.5	1.40	425 - 675	#13-106	€76,00 Qty 11+ €68,00	3-4 days
50.00	VIS 0° (425-675nm)	1.5	1.40	425 - 675	#13-123	€162,00 Qty 11+ €142,00	3-4 days
12.50	VIS 0° (425-675nm)	2	1.85	425 - 675	#13-090	€55,00 Qty 11+ €48,00	3-4 days
25.00	VIS 0° (425-675nm)	2	1.85	425 - 675	#13-107	€76,00 Qty 11+ €68,00	In Stock
50.00	VIS 0° (425-675nm)	2	1.85	425 - 675	#13-124	€162,00 Qty 11+ €142,00	3-4 days

12.50	VIS 0° (425-675nm)	2.5	2.30	425 - 675	#13-091	€55,00 Qty 11+ €48,00	3-4 days
25.00	VIS 0° (425-675nm)	2.5	2.30	425 - 675	#13-108	€76,00 Qty 11+ €68,00	3-4 days
50.00	VIS 0° (425-675nm)	2.5	2.30	425 - 675	#13-125	€162,00 Qty 11+ €142,00	3-4 days
12.50	VIS 0° (425-675nm)	3	2.77	425 - 675	#13-092	€55,00 Qty 11+ €48,00	3-4 days
25.00	VIS 0° (425-675nm)	3	2.77	425 - 675	#13-109	€76,00 Qty 11+ €68,00	In Stock
50.00	VIS 0° (425-675nm)	3	2.77	425 - 675	#13-126	€162,00 Qty 11+ €142,00	In Stock
12.50	VIS 0° (425-675nm)	3.5	3.40	425 - 675	#13-093	€55,00 Qty 11+ €48,00	3-4 days
25.00	VIS 0° (425-675nm)	3.5	3.40	425 - 675	#13-110	€76,00 Qty 11+ €68,00	3-4 days
50.00	VIS 0° (425-675nm)	3.5	3.40	425 - 675	#13-127	€162,00 Qty 11+ €142,00	3-4 days
12.50	VIS 0° (425-675nm)	4	3.60	425 - 675	#13-094	€55,00 Qty 11+ €48,00	3-4 days
25.00	VIS 0° (425-675nm)	4	3.60	425 - 675	#13-111	€76,00 Qty 11+ €68,00	In Stock
50.00	VIS 0° (425-675nm)	4	3.60	425 - 675	#13-128	€162,00 Qty 11+ €142,00	3-4 days
12.50	NIR I (600-1050nm)	0.1	0.14	600 - 1050	#13-146	€55,00 Qty 11+ €48,00	3-4 days
25.00	NIR I (600-1050nm)	0.1	0.14	600 - 1050	#13-163	€76,00 Qty 11+ €68,00	In Stock

50.00	NIR I (600-1050nm)	0.1	0.14	600 - 1050	#13-180	€162,00 Qty 11+ €142,00	3-4 days
12.50	NIR I (600-1050nm)	0.15	0.25	600 - 1050	#13-147	€55,00 Qty 11+ €48,00	3-4 days
25.00	NIR I (600-1050nm)	0.15	0.25	600 - 1050	#13-164	€76,00 Qty 11+ €68,00	3-4 days
50.00	NIR I (600-1050nm)	0.15	0.25	600 - 1050	#13-181	€162,00 Qty 11+ €142,00	3-4 days
12.50	NIR I (600-1050nm)	0.2	0.26	600 - 1050	#13-148	€55,00 Qty 11+ €48,00	3-4 days
25.00	NIR I (600-1050nm)	0.2	0.26	600 - 1050	#13-165	€76,00 Qty 11+ €68,00	In Stock
50.00	NIR I (600-1050nm)	0.2	0.26	600 - 1050	#13-182	€162,00 Qty 11+ €142,00	3-4 days
12.50	NIR I (600-1050nm)	0.3	0.40	600 - 1050	#13-149	€55,00 Qty 11+ €48,00	3-4 days
25.00	NIR I (600-1050nm)	0.3	0.40	600 - 1050	#13-166	€76,00 Qty 11+ €68,00	In Stock
50.00	NIR I (600-1050nm)	0.3	0.40	600 - 1050	#13-183	€162,00 Qty 11+ €142,00	3-4 days
12.50	NIR I (600-1050nm)	0.4	0.48	600 - 1050	#13-150	€55,00 Qty 11+ €48,00	3-4 days
25.00	NIR I (600-1050nm)	0.4	0.48	600 - 1050	#13-167	€76,00 Qty 11+ €68,00	In Stock
50.00	NIR I (600-1050nm)	0.4	0.48	600 - 1050	#13-184	€162,00 Qty 11+ €142,00	3-4 days
12.50	NIR I (600-1050nm)	0.5	0.68	600 - 1050	#13-151	€55,00 Qty 11+ €48,00	3-4 days

25.00	NIR I (600-1050nm)	0.5	0.68	600 - 1050	#13-168	€76,00 Qty 11+ €68,00	In Stock
50.00	NIR I (600-1050nm)	0.5	0.68	600 - 1050	#13-185	€162,00 Qty 11+ €142,00	3-4 days
12.50	NIR I (600-1050nm)	0.6	0.84	600 - 1050	#13-152	€55,00 Qty 11+ €48,00	3-4 days
25.00	NIR I (600-1050nm)	0.6	0.84	600 - 1050	#13-169	€76,00 Qty 11+ €68,00	In Stock
50.00	NIR I (600-1050nm)	0.6	0.84	600 - 1050	#13-186	€162,00 Qty 11+ €142,00	3-4 days
12.50	NIR I (600-1050nm)	0.7	1.03	600 - 1050	#13-153	€55,00 Qty 11+ €48,00	3-4 days
25.00	NIR I (600-1050nm)	0.7	1.03	600 - 1050	#13-170	€76,00 Qty 11+ €68,00	3-4 days
50.00	NIR I (600-1050nm)	0.7	1.03	600 - 1050	#13-187	€162,00 Qty 11+ €142,00	3-4 days
12.50	NIR I (600-1050nm)	0.9	1.02	600 - 1050	#13-154	€55,00 Qty 11+ €48,00	3-4 days
25.00	NIR I (600-1050nm)	0.9	1.02	600 - 1050	#13-171	€76,00 Qty 11+ €68,00	3-4 days
50.00	NIR I (600-1050nm)	0.9	1.02	600 - 1050	#13-188	€162,00 Qty 11+ €142,00	3-4 days
12.50	NIR I (600-1050nm)	1	0.53	600 - 1050	#13-155	€55,00 Qty 11+ €48,00	3-4 days
25.00	NIR I (600-1050nm)	1	0.53	600 - 1050	#13-172	€76,00 Qty 11+ €68,00	In Stock
50.00	NIR I (600-1050nm)	1	0.53	600 - 1050	#13-189	€162,00 Qty 11+ €142,00	In Stock

12.50	NIR I (600-1050nm)	1.3	0.76	600 - 1050	#13-156	€55,00 Qty 11+ €48,00	3-4 days
25.00	NIR I (600-1050nm)	1.3	0.76	600 - 1050	#13-173	€76,00 Qty 11+ €68,00	3-4 days
50.00	NIR I (600-1050nm)	1.3	0.76	600 - 1050	#13-190	€162,00 Qty 11+ €142,00	3-4 days
12.50	NIR I (600-1050nm)	1.5	0.78	600 - 1050	#13-157	€55,00 Qty 11+ €48,00	3-4 days
25.00	NIR I (600-1050nm)	1.5	0.78	600 - 1050	#13-174	€76,00 Qty 11+ €68,00	3-4 days
50.00	NIR I (600-1050nm)	1.5	0.78	600 - 1050	#13-191	€162,00 Qty 11+ €142,00	3-4 days
12.50	NIR I (600-1050nm)	2	1.03	600 - 1050	#13-158	€55,00 Qty 11+ €48,00	3-4 days
25.00	NIR I (600-1050nm)	2	1.03	600 - 1050	#13-175	€76,00 Qty 11+ €68,00	In Stock
50.00	NIR I (600-1050nm)	2	1.03	600 - 1050	#13-192	€162,00 Qty 11+ €142,00	3-4 days
12.50	NIR I (600-1050nm)	2.5	1.28	600 - 1050	#13-159	€55,00 Qty 11+ €48,00	3-4 days
25.00	NIR I (600-1050nm)	2.5	1.28	600 - 1050	#13-176	€76,00 Qty 11+ €68,00	3-4 days
50.00	NIR I (600-1050nm)	2.5	1.28	600 - 1050	#13-193	€162,00 Qty 11+ €142,00	3-4 days
12.50	NIR I (600-1050nm)	3	1.53	600 - 1050	#13-160	€55,00 Qty 11+ €48,00	Contact Us
25.00	NIR I (600-1050nm)	3	1.53	600 - 1050	#13-177	€76,00 Qty 11+ €68,00	In Stock

50.00	NIR I (600-1050nm)	3	1.53	600 - 1050	#13-194	€162,00 Qty 11+ €142,00	3-4 days
12.50	NIR I (600-1050nm)	3.5	2.51	600 - 1050	#13-161	€55,00 Qty 11+ €48,00	3-4 days
25.00	NIR I (600-1050nm)	3.5	2.51	600 - 1050	#13-178	€76,00 Qty 11+ €68,00	3-4 days
50.00	NIR I (600-1050nm)	3.5	2.51	600 - 1050	#13-195	€162,00 Qty 11+ €142,00	3-4 days
12.50	NIR I (600-1050nm)	4	2.58	600 - 1050	#13-162	€55,00 Qty 11+ €48,00	3-4 days
25.00	NIR I (600-1050nm)	4	2.58	600 - 1050	#13-179	€76,00 Qty 11+ €68,00	3-4 days
50.00	NIR I (600-1050nm)	4	2.58	600 - 1050	#13-196	€162,00 Qty 11+ €142,00	3-4 days
12.50	NIR II (750-1550nm)	0.1	0.16	750 - 1550	#13-217	€55,00 Qty 11+ €48,00	3-4 days
25.00	NIR II (750-1550nm)	0.1	0.16	750 - 1550	#13-235	€76,00 Qty 11+ €68,00	3-4 days
50.00	NIR II (750-1550nm)	0.1	0.16	750 - 1550	#13-252	€162,00 Qty 11+ €142,00	In Stock
12.50	NIR II (750-1550nm)	0.15	0.29	750 - 1550	#13-218	€55,00 Qty 11+ €48,00	3-4 days
25.00	NIR II (750-1550nm)	0.15	0.29	750 - 1550	#13-236	€76,00 Qty 11+ €68,00	3-4 days
50.00	NIR II (750-1550nm)	0.15	0.29	750 - 1550	#13-253	€162,00 Qty 11+ €142,00	3-4 days
12.50	NIR II (750-1550nm)	0.2	0.30	750 - 1550	#13-219	€55,00 Qty 11+ €48,00	3-4 days

25.00	NIR II (750-1550nm)	0.2	0.30	750 - 1550	#13-237	€76,00 Qty 11+ €68,00	3-4 days
50.00	NIR II (750-1550nm)	0.2	0.30	750 - 1550	#13-254	€162,00 Qty 11+ €142,00	3-4 days
12.50	NIR II (750-1550nm)	0.3	0.47	750 - 1550	#13-220	€55,00 Qty 11+ €48,00	3-4 days
25.00	NIR II (750-1550nm)	0.3	0.47	750 - 1550	#13-238	€76,00 Qty 11+ €68,00	3-4 days
50.00	NIR II (750-1550nm)	0.3	0.47	750 - 1550	#13-255	€162,00 Qty 11+ €142,00	3-4 days
12.50	NIR II (750-1550nm)	0.4	0.55	750 - 1550	#13-221	€55,00 Qty 11+ €48,00	3-4 days
25.00	NIR II (750-1550nm)	0.4	0.55	750 - 1550	#13-239	€76,00 Qty 11+ €68,00	3-4 days
50.00	NIR II (750-1550nm)	0.4	0.55	750 - 1550	#13-256	€162,00 Qty 11+ €142,00	3-4 days
12.50	NIR II (750-1550nm)	0.5	0.79	750 - 1550	#13-223	€55,00 Qty 11+ €48,00	3-4 days
25.00	NIR II (750-1550nm)	0.5	0.79	750 - 1550	#13-240	€76,00 Qty 11+ €68,00	3-4 days
50.00	NIR II (750-1550nm)	0.5	0.79	750 - 1550	#13-257	€162,00 Qty 11+ €142,00	3-4 days
12.50	NIR II (750-1550nm)	0.6	0.98	750 - 1550	#13-224	€55,00 Qty 11+ €48,00	3-4 days
25.00	NIR II (750-1550nm)	0.6	0.98	750 - 1550	#13-241	€76,00 Qty 11+ €68,00	3-4 days
50.00	NIR II (750-1550nm)	0.6	0.98	750 - 1550	#13-258	€162,00 Qty 11+ €142,00	3-4 days

12.50	NIR II (750-1550nm)	0.7	1.21	750 - 1550	#13-225	€55,00 Qty 11+ €48,00	3-4 days
25.00	NIR II (750-1550nm)	0.7	1.21	750 - 1550	#13-242	€76,00 Qty 11+ €68,00	3-4 days
50.00	NIR II (750-1550nm)	0.7	1.21	750 - 1550	#13-259	€162,00 Qty 11+ €142,00	3-4 days
12.50	NIR II (750-1550nm)	0.9	1.18	750 - 1550	#13-226	€55,00 Qty 11+ €48,00	3-4 days
25.00	NIR II (750-1550nm)	0.9	1.18	750 - 1550	#13-243	€76,00 Qty 11+ €68,00	3-4 days
50.00	NIR II (750-1550nm)	0.9	1.18	750 - 1550	#13-260	€162,00 Qty 11+ €142,00	3-4 days
12.50	NIR II (750-1550nm)	1	0.53	750 - 1550	#13-227	€55,00 Qty 11+ €48,00	3-4 days
25.00	NIR II (750-1550nm)	1	0.53	750 - 1550	#13-244	€76,00 Qty 11+ €68,00	3-4 days
50.00	NIR II (750-1550nm)	1	0.53	750 - 1550	#13-261	€162,00 Qty 11+ €142,00	3-4 days
12.50	NIR II (750-1550nm)	1.3	0.75	750 - 1550	#13-228	€55,00 Qty 11+ €48,00	3-4 days
25.00	NIR II (750-1550nm)	1.3	0.75	750 - 1550	#13-245	€76,00 Qty 11+ €68,00	3-4 days
50.00	NIR II (750-1550nm)	1.3	0.75	750 - 1550	#13-262	€162,00 Qty 11+ €142,00	3-4 days
12.50	NIR II (750-1550nm)	1.5	0.78	750 - 1550	#13-229	€55,00 Qty 11+ €48,00	3-4 days
25.00	NIR II (750-1550nm)	1.5	0.78	750 - 1550	#13-246	€76,00 Qty 11+ €68,00	3-4 days

50.00	NIR II (750-1550nm)	1.5	0.78	750 - 1550	#13-263	€162,00 Qty 11+ €142,00	3-4 days
12.50	NIR II (750-1550nm)	2	1.02	750 - 1550	#13-230	€55,00 Qty 11+ €48,00	3-4 days
25.00	NIR II (750-1550nm)	2	1.02	750 - 1550	#13-247	€76,00 Qty 11+ €68,00	3-4 days
50.00	NIR II (750-1550nm)	2	1.02	750 - 1550	#13-264	€162,00 Qty 11+ €142,00	3-4 days
12.50	NIR II (750-1550nm)	2.5	1.27	750 - 1550	#13-231	€55,00 Qty 11+ €48,00	3-4 days
25.00	NIR II (750-1550nm)	2.5	1.27	750 - 1550	#13-248	€76,00 Qty 11+ €68,00	3-4 days
50.00	NIR II (750-1550nm)	2.5	1.27	750 - 1550	#13-265	€162,00 Qty 11+ €142,00	3-4 days
12.50	NIR II (750-1550nm)	3	1.52	750 - 1550	#13-232	€55,00 Qty 11+ €48,00	3-4 days
25.00	NIR II (750-1550nm)	3	1.52	750 - 1550	#13-249	€76,00 Qty 11+ €68,00	3-4 days
50.00	NIR II (750-1550nm)	3	1.52	750 - 1550	#13-266	€162,00 Qty 11+ €142,00	3-4 days
12.50	NIR II (750-1550nm)	3.5	2.77	750 - 1550	#13-233	€55,00 Qty 11+ €48,00	3-4 days
25.00	NIR II (750-1550nm)	3.5	2.77	750 - 1550	#13-250	€76,00 Qty 11+ €68,00	3-4 days
50.00	NIR II (750-1550nm)	3.5	2.77	750 - 1550	#13-267	€162,00 Qty 11+ €142,00	3-4 days
12.50	NIR II (750-1550nm)	4	2.88	750 - 1550	#13-234	€55,00 Qty 11+ €48,00	3-4 days

25.00	NIR II (750- 1550nm)	4	2.88	750 - 1550	#13-251	€76,00 Qty 11+ €68,00	3-4 days
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50.00	NIR II (750- 1550nm)	4	2.88	750 - 1550	#13-268	€162,00 Qty 11+ €142,00	3-4 days
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