

Absorptive Neutral Density Filters, Mounted

- Two versions available for calibrated visible (425-675nm) and near-IR coverage
- Supplied in three popular diameters - 25mm, 30mm and 50mm
- Transmittances available from 0.01% to 90%
- Mounted version has a convenient metal ring
- Unmounted visible and YAG versions also available



These are absorbing glass type ND filters. Neutral density filters are very useful in a variety of applications where a precise and known beam attenuation is needed. Filters may be stacked (see introduction on page 193) for additive attenuation. These filters are mounted in metal rings which provide mounting convenience. The outside diameters of the mounting rings are 25mm, 30mm and 50mm. The clear apertures of the filters are 17mm, 25mm and 45mm respectively. As well as a standard line, a series is offered for use with low power YAG lasers. These are optimized to have the precisely stated densities at 1064nm. These YAG ND Filters are for low power applications only. We do not specify or guarantee a damage threshold.

Specifications & Tolerances

Mount diameter: 25, 30 or 52mm ± 0.1 mm

Parallelism: 3arcmin

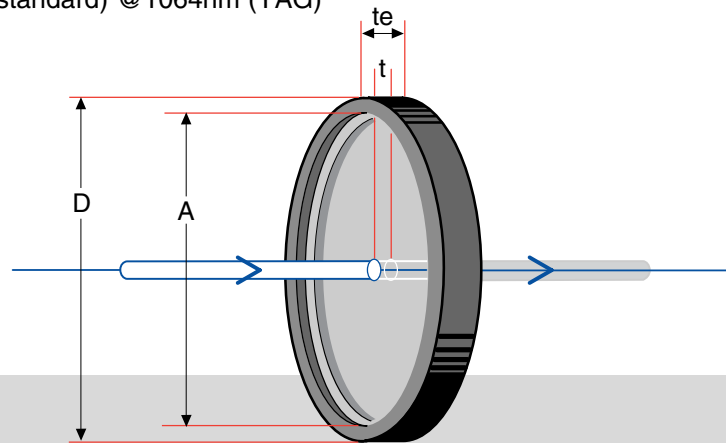
Surface quality: 60-40

Density: @550nm (standard) @1064nm (YAG)

Clear aperture: 17.0, 22.0 or 42.0mm

Mount thickness (te): 5.0 ± 0.2 mm

Filter thickness (t): See Unmounted Filters



ABSORPTIVE NEUTRAL DENSITY FILTER

Absorptive Neutral Density Filters, Mounted

Wavelength Range (nm)	Diameter, D (mm)	Aperture, A (mm)	Optical Density (OD)	Transmittance (%)	Price	PART NUMBER
400-700	25.0	17.0	3.00	0.1 \pm 0.07		077-0178
400-700	25.0	17.0	2.00	1 \pm 0.5		077-0180
400-700	25.0	17.0	1.30	5 \pm 1		077-0182
400-700	25.0	17.0	1.00	10 \pm 2		077-0184
400-700	25.0	17.0	0.89	12.5 \pm 2		077-0186
400-700	25.0	17.0	0.70	20 \pm 2		077-0188

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Wavelength Range (nm)	Diameter, D (mm)	Aperture, A (mm)	Optical Density (OD)	Transmittance (%)	Price	PART NUMBER
400-700	25.0	17.0	0.60	25 ± 2.5		077-0190
400-700	25.0	17.0	0.52	30 ± 3		077-0192
400-700	25.0	17.0	0.40	40 ± 4		077-0194
400-700	25.0	17.0	0.30	50 ± 5		077-0196
400-700	25.0	17.0	0.16	70 ± 5		077-0198
400-700	30.0	22.0	3.00	0.1 ± 0.07		077-0218
400-700	30.0	22.0	2.00	1 ± 0.5		077-0220
400-700	30.0	22.0	1.30	5 ± 1		077-0230
400-700	30.0	22.0	1.00	10 ± 2		077-0240
400-700	30.0	22.0	0.89	12.5 ± 2		077-0250
400-700	30.0	22.0	0.70	20 ± 2		077-0260
400-700	30.0	22.0	0.60	25 ± 2.5		077-0270
400-700	30.0	22.0	0.52	30 ± 3		077-0280
400-700	30.0	22.0	0.40	40 ± 4		077-0290
400-700	30.0	22.0	0.30	50 ± 5		077-0330
400-700	30.0	22.0	0.16	70 ± 5		077-0340
400-700	52.0	47.0	3.00	0.1 ± 0.07		077-0348
400-700	52.0	47.0	2.00	1 ± 0.5		077-0350
400-700	52.0	47.0	1.30	5 ± 1		077-0355
400-700	52.0	47.0	1.00	10 ± 2		077-0360
400-700	52.0	47.0	0.89	12.5 ± 2		077-0365
400-700	52.0	47.0	0.70	20 ± 2		077-0370
400-700	52.0	47.0	0.60	25 ± 2.5		077-0380
400-700	52.0	47.0	0.52	30 ± 3		077-0390
400-700	52.0	47.0	0.40	40 ± 4		077-0440
400-700	52.0	47.0	0.30	50 ± 5		077-0450
400-700	52.0	47.0	0.16	70 ± 5		077-0460
1064.0	25.0	17.0	1.30	5		077-1050
1064.0	25.0	17.0	1.00	10		077-1052
1064.0	25.0	17.0	0.82	15		077-1054
1064.0	25.0	17.0	0.70	20		077-1056
1064.0	25.0	17.0	0.60	25		077-1058
1064.0	25.0	17.0	0.52	30		077-1060
1064.0	25.0	17.0	0.30	50		077-1062
1064.0	30.0	22.0	1.30	5		077-1110
1064.0	30.0	22.0	1.00	10		077-1120
1064.0	30.0	22.0	0.82	15		077-1130
1064.0	30.0	22.0	0.70	20		077-1140
1064.0	30.0	22.0	0.60	25		077-1150
1064.0	30.0	22.0	0.52	30		077-1160
1064.0	30.0	22.0	0.30	50		077-1170
1064.0	52.0	47.0	1.30	5		077-1180
1064.0	52.0	47.0	1.00	10		077-1190
1064.0	52.0	47.0	0.82	15		077-1220
1064.0	52.0	47.0	0.70	20		077-1230
1064.0	52.0	47.0	0.60	25		077-1240
1064.0	52.0	47.0	0.52	30		077-1250
1064.0	52.0	47.0	0.30	50		077-1260

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Round and Square Neutral Density Filters, Unmounted

We offer here a range of round and square unmounted neutral density filters. These unmounted neutral density filters exhibit all of the useful attributes of our mounted filters, but will be found useful in special and built-in applications.



Specifications & Tolerances

Side: $\pm 0.2\text{mm}$ Thickness: $\pm 0.5\text{mm}$
 Parallelism: $\leq 3\text{arcmin}$ Surface quality: 60-40
 Density: Specified @550nm

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Absorptive Neutral Density Filters, Unmounted Round

Wavelength Range (nm)	Diameter, D (mm)	Thickness (mm)	Optical Density (OD)	Transmittance (%)	Price	PART NUMBER
400-700	10.0	<5	3.00	0.1 \pm 0.07		077-1319
400-700	10.0	<5	2.00	1 \pm 0.5		077-1320
400-700	10.0	<5	1.30	5 \pm 1		077-1321
400-700	10.0	<5	1.00	10 \pm 2		077-1322
400-700	10.0	<5	0.89	12.5 \pm 2		077-1323
400-700	10.0	<5	0.70	20 \pm 2		077-1324
400-700	10.0	<5	0.60	25 \pm 2.5		077-1325
400-700	10.0	<5	0.52	30 \pm 3		077-1326
400-700	10.0	<5	0.40	40 \pm 4		077-1327
400-700	10.0	<5	0.30	50 \pm 5		077-1328
400-700	10.0	<5	0.16	70 \pm 5		077-1329
400-700	25.0	<5	3.00	0.1 \pm 0.07		077-1270
400-700	25.0	<5	2.00	1 \pm 0.5		077-1261
400-700	25.0	<5	1.30	5 \pm 1		077-1263
400-700	25.0	<5	1.00	10 \pm 2		077-1265
400-700	25.0	<5	0.89	12.5 \pm 2		077-1267
400-700	25.0	<5	0.70	20 \pm 2		077-1269
400-700	25.0	<5	0.60	25 \pm 2.5		077-1271
400-700	25.0	<5	0.52	30 \pm 3		077-1273
400-700	25.0	<5	0.40	40 \pm 4		077-1275
400-700	25.0	<5	0.30	50 \pm 5		077-1277
400-700	25.0	<5	0.16	70 \pm 5		077-1279
400-700	30.0	<5	3.00	0.1 \pm 0.07		077-1289
400-700	30.0	<5	2.00	1 \pm 0.5		077-1280
400-700	30.0	<5	1.30	5 \pm 1		077-1282
400-700	30.0	<5	1.00	10 \pm 2		077-1284
400-700	30.0	<5	0.89	12.5 \pm 2		077-1286
400-700	30.0	<5	0.70	20 \pm 2		077-1288
400-700	30.0	<5	0.60	25 \pm 2.5		077-1289
400-700	30.0	<5	0.52	30 \pm 3		077-1292
400-700	30.0	<5	0.40	40 \pm 4		077-1294
400-700	30.0	<5	0.30	50 \pm 5		077-1296
400-700	30.0	<5	0.16	70 \pm 5		077-1298
400-700	50.0	<5	3.00	0.1 \pm 0.07		077-1299
400-700	50.0	<5	2.00	1 \pm 0.5		077-1300
400-700	50.0	<5	1.30	5 \pm 1		077-1302
400-700	50.0	<5	1.00	10 \pm 2		077-1304
400-700	50.0	<5	0.89	12.5 \pm 2		077-1306
400-700	50.0	<5	0.70	20 \pm 2		077-1308
400-700	50.0	<5	0.60	25 \pm 2.5		077-1310
400-700	50.0	<5	0.52	30 \pm 3		077-1312

If you need a neutral density filter quickly, just let us know. With our next-day delivery option your system will be up and running that much sooner. And if you don't see exactly the neutral density filter that you need give us a call. We can provide a wide range of special densities, sizes, and shapes to your specification.

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Absorptive Neutral Density Filters, Unmounted Round (continued)

Wavelength Range (nm)	Diameter, D (mm)	Aperture, A (mm)	Optical Density (OD)	Transmittance (%)	Price	PART NUMBER
400-700	50.0	<5	0.40	40 ± 4		077-1314
400-700	50.0	<5	0.30	50 ± 5		077-1316
400-700	50.0	<5	0.16	70 ± 5		077-1318
1064.0	10.0	<5	1.30	5		077-6110
1064.0	10.0	<5	1.00	10		077-6111
1064.0	10.0	<5	0.82	15		077-6112
1064.0	10.0	<5	0.70	20		077-6113
1064.0	10.0	<5	0.60	25		077-6114
1064.0	10.0	<5	0.52	30		077-6115
1064.0	10.0	<5	0.30	50		077-6117
1064.0	25.0	<5	1.30	5		077-6410
1064.0	25.0	<5	1.00	10		077-6411
1064.0	25.0	<5	0.82	15		077-6412
1064.0	25.0	<5	0.70	20		077-6413
1064.0	25.0	<5	0.60	25		077-6414
1064.0	25.0	<5	0.52	30		077-6415
1064.0	25.0	<5	0.30	50		077-6417
1064.0	30.0	<5	1.30	5		077-6510
1064.0	30.0	<5	1.00	10		077-6511
1064.0	30.0	<5	0.82	15		077-6512
1064.0	30.0	<5	0.70	20		077-6513
1064.0	30.0	<5	0.60	25		077-6514
1064.0	30.0	<5	0.52	30		077-6515
1064.0	30.0	<5	0.30	50		077-6517
1064.0	50.0	<5	1.30	5		077-6710
1064.0	50.0	<5	1.00	10		077-6711
1064.0	50.0	<5	0.82	15		077-6712
1064.0	50.0	<5	0.70	20		077-6713
1064.0	50.0	<5	0.60	25		077-6714
1064.0	50.0	<5	0.52	30		077-6715
1064.0	50.0	<5	0.30	50		077-6717

Absorptive Neutral Density Filters, Unmounted Square

Wavelength Range (nm)	Size (mm)	Thickness (mm)	Optical Density (OD)	Transmittance (%)	Price	PART NUMBER
400-700	10.0	<5	3.00	0.1 ± 0.07		077-0115
400-700	10.0	<5	2.00	1 ± 0.5		077-0120
400-700	10.0	<5	1.30	5 ± 1		077-0121
400-700	10.0	<5	1.00	10 ± 2		077-0122
400-700	10.0	<5	0.89	12.5 ± 2		077-0123
400-700	10.0	<5	0.70	20 ± 2		077-0124
400-700	10.0	<5	0.60	25 ± 2.5		077-0125
400-700	10.0	<5	0.52	30 ± 3		077-0126
400-700	10.0	<5	0.40	40 ± 4		077-0127
400-700	10.0	<5	0.30	50 ± 5		077-0128
400-700	10.0	<5	0.16	70 ± 5		077-0129
400-700	25.0	<5	3.00	0.1 ± 0.07		077-0135
400-700	25.0	<5	2.00	1 ± 0.5		077-0140
400-700	25.0	<5	1.30	5 ± 1		077-0141
400-700	25.0	<5	1.00	10 ± 2		077-0142
400-700	25.0	<5	0.89	12.5 ± 2		077-0143
400-700	25.0	<5	0.70	20 ± 2		077-0144

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Wavelength Range (nm)	Size (mm)	Thickness (mm)	Optical Density (OD)	Transmittance (%)	Price	PART NUMBER
400-700	25.0	≤5	0.60	25 ± 2.5		077-0145
400-700	25.0	≤5	0.52	30 ± 3		077-0146
400-700	25.0	≤5	0.40	40 ± 4		077-0147
400-700	25.0	≤5	0.30	50 ± 5		077-0148
400-700	25.0	≤5	0.16	70 ± 5		077-0149
400-700	50.0	≤5	3.00	0.1 ± 0.07		077-0005
400-700	50.0	≤5	2.00	1 ± 0.5		077-0010
400-700	50.0	≤5	1.30	5 ± 1		077-0020
400-700	50.0	≤5	1.00	10 ± 2		077-0030
400-700	50.0	≤5	0.89	12.5 ± 2		077-0040
400-700	50.0	≤5	0.70	20 ± 2		077-0050
400-700	50.0	≤5	0.60	25 ± 2.5		077-0060
400-700	50.0	≤5	0.52	30 ± 3		077-0070
400-700	50.0	≤5	0.40	40 ± 4		077-0080
400-700	50.0	≤5	0.30	50 ± 5		077-0090
400-700	50.0	≤5	0.16	70 ± 5		077-0110
1064.0	10.0	≤5	1.30	5		077-7110
1064.0	10.0	≤5	1.00	10		077-7111
1064.0	10.0	≤5	0.82	15		077-7112
1064.0	10.0	≤5	0.70	20		077-7113
1064.0	10.0	≤5	0.60	25		077-7114
1064.0	10.0	≤5	0.52	30		077-7115
1064.0	10.0	≤5	0.30	50		077-7117
1064.0	25.0	≤5	1.30	5		077-7410
1064.0	25.0	≤5	1.00	10		077-7411
1064.0	25.0	≤5	0.82	15		077-7412
1064.0	25.0	≤5	0.70	20		077-7413
1064.0	25.0	≤5	0.60	25		077-7414
1064.0	25.0	≤5	0.52	30		077-7415
1064.0	25.0	≤5	0.30	50		077-7417
1064.0	50.0	≤5	1.30	5		077-7710
1064.0	50.0	≤5	1.00	10		077-7711
1064.0	50.0	≤5	0.82	15		077-7712
1064.0	50.0	≤5	0.70	20		077-7713
1064.0	50.0	≤5	0.60	25		077-7714
1064.0	50.0	≤5	0.52	30		077-7715
1064.0	50.0	≤5	0.30	50		077-7717

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