



ANDOVER CORPORATION
Quality Optical Filters and Coatings
2009 - 2010

ORDERING INFORMATION

Four Ways to Order

Online	www.andovercorp.com
Email	sales@andovercorp.com
Telephone	US toll-free 1.888.893.9992 International +00.1.603.893.6888
Fax	603.893.6508

Pricing

Current prices are available at andovercorp.com by clicking on the part numbers for particular items. For a complete price list or a specific quote, please contact our sales department.

Purchase Orders

Andover Corporation accepts e-mail, written, and online orders from customers with an open line of credit. New customers must confirm their orders in writing and supply credit references upon request.

Blanket Orders

Andover Corporation can help reduce your inventory by scheduling automatic delivery of your order over time. Complete details are available here: <http://www.andovercorp.com/info>

Payment Terms

Net 30 days from date of invoice for customers with established lines of credit. International customers should check with the sales department to determine if prepayment is required. All foreign orders are subject to shipping and banking fees. For blanket orders, please contact our sales department for special terms and conditions. Visa, MasterCard and American Express accepted.



Shipping

Most standard items ship within two days of receipt of an order. All out-of-stock products are shipped within two weeks. For rush orders, one-day shipping may be available.

All prices are FOB Salem, New Hampshire, USA. Shipments are freight prepaid and billed to the buyer.

Order online for free ground shipping within the US.

Return Policy

Andover Corporation accepts returns of defective items up to one year from the invoice date. Before returning any items, please contact our technical sales staff for a Return Goods Authorization (RGA) number and complete shipping instructions.

LIMITED WARRANTY

Andover warrants that all products shall conform to the product specifications and shall be free from defects in materials and workmanship for a period of one year from date of purchase. This Limited Warranty shall not apply in the event of any failure caused by accident, misuse, neglect, alteration or improper installation or repair by the purchaser.

Disclaimer of other warranties. The limited warranty set forth above is in place of other warranties, express or implied, and Andover expressly disclaims all other warranties, including warranties of merchantability and fitness for a particular purpose. Specifically, it is the purchaser's responsibility to test and determine the suitability of the products for purchaser's intended use, which shall be the sole responsibility of the purchaser.

Limitation of remedies and damages. Andover's sole obligation and the purchaser's sole and exclusive remedy under the Limited Warranty set forth above shall be limited to (a) replacement of defective products provided that written claim of the defect is sent to Andover within the Limited Warranty period, the original product is returned with transportation prepaid, and Andover's inspection establishes the existence of such defect; or (b) at the sole discretion of Andover, return of the original purchase price received by Andover from the purchaser. Andover shall in no event be liable for any damages, including without limitation, lost profits, incidental or consequential damages by reason of or in connection with the purchase or use of the products.

Indemnification. The purchaser agrees to indemnify and hold Andover harmless from and against any claim, loss, cost or expense resulting from purchaser's use of the products, whether such claim arises in contract, tort or otherwise.

Governing law. All matters arising under this Limited Warranty and other terms and conditions of sale shall be governed by the laws of the State of New Hampshire. The purchaser consents to the exclusive jurisdiction of the courts of the State of New Hampshire in all matters relating to the purchase, sale and use of the products.

EDGE FILTERS

- **Useful for redirecting a particular band of light**
- **Provide steeper transition than color glass filters**
- **Offer coverage over the 400–1000nm range**

Often referred to as long wave pass (LWP) and short wave pass (SWP) filters, edge filters provide a well-defined transition between reflecting and transmitting regions. Essentially a modified quarter-wave stack, the filters use interference effects rather than absorption to isolate their spectral bands. Because edge filters will shift shorter with an increase in the angle of incidence, they are a good choice for fine-tuning the cut-on/cut-off wavelength. With their durable, first-surface dielectric coatings, Andover's edge filters are built to withstand the normal cleaning and handling required by any high-quality optical component.

GENERAL SPECIFICATIONS

Size Tolerance	+0.0mm/-0.5mm
Thickness	4.0mm maximum
Min. Clear Aperture	85% of outside dimension
Substrate Material	Glass
Flatness	3–5 waves per 25mm
Surface Quality	80/50 per MIL-C-48497A
Humidity and Abrasion	Per MIL-C-675A
Operating Temperature	-50°C to +100°C
Cut-on/cut-off Slopes	6% maximum
Cut-on/cut-off Tolerance	±10nm



Applications

Fluorescence
Photometry
Color Enhancement
and Combining

TRANSMISSION

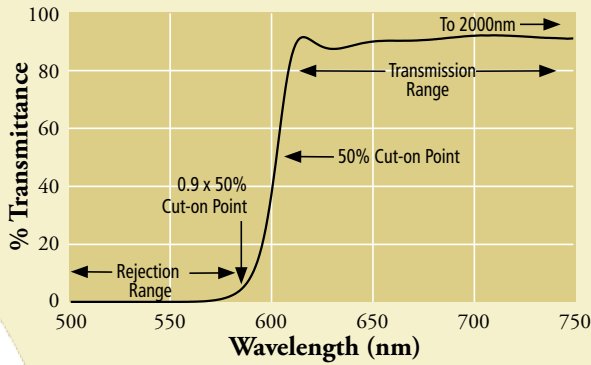
Long Wave Pass	85% average from the 50% cut-on point to 2000nm
Short Wave Pass	85% average from the 50% cut-off point to 0.6 x the 50% cut-off point

(Note: With the exception of the 400nm filter, all SWP filters will drop off in transmission at wavelengths under 425nm.)

REJECTION

Long Wave Pass	99% or greater from 0.9 x the 50% point to the ultraviolet
Short Wave Pass	99% or greater from 1.07 x the 50% point to 1.25 x the 50% point
Effective Index of Refraction (n*)	1.7 (approximately)

Long Wave Pass



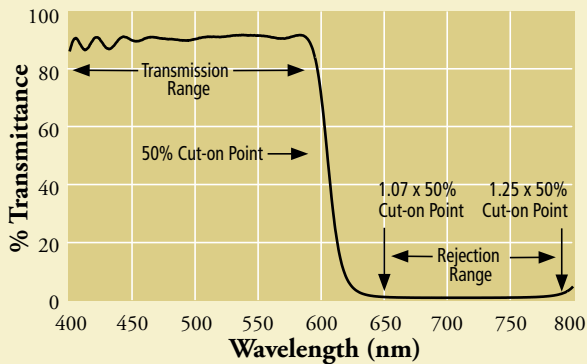
VISIBLE

Size, Shape & Part Number			
50% Point	25mm Ø ○	50mm Ø ○	50mm SQ □
400nm	400FH90-25	400FH90-50	400FH90-50S
450nm	450FH90-25	450FH90-50	450FH90-50S
500nm	500FH90-25	500FH90-50	500FH90-50S
550nm	550FH90-25	550FH90-50	550FH90-50S
600nm	600FH90-25	600FH90-50	600FH90-50S
650nm	650FH90-25	650FH90-50	650FH90-50S
700nm	700FH90-25	700FH90-50	700FH90-50S
Full Set	120FA90-25	120FA90-50	120FA90-50S

NEAR INFRARED

Size, Shape & Part Number			
50% Point	25mm Ø ○	50mm Ø ○	50mm SQ □
750nm	750FH90-25	750FH90-50	750FH90-50S
800nm	800FH90-25	800FH90-50	800FH90-50S
850nm	850FH90-25	850FH90-50	850FH90-50S
900nm	900FH90-25	900FH90-50	900FH90-50S
950nm	950FH90-25	950FH90-50	950FH90-50S
1000nm	100FH90-25	100FH90-50	100FH90-50S
Full Set	121FA90-25	121FA90-50	121FA90-50S

Short Wave Pass



VISIBLE

Size, Shape & Part Number			
50% Point	25mm Ø ○	50mm Ø ○	50mm SQ □
400nm	400FL07-25	400FL07-50	400FL07-50S
450nm	450FL07-25	450FL07-50	450FL07-50S
500nm	500FL07-25	500FL07-50	500FL07-50S
550nm	550FL07-25	550FL07-50	550FL07-50S
600nm	600FL07-25	600FL07-50	600FL07-50S
650nm	650FL07-25	650FL07-50	650FL07-50S
700nm	700FL07-25	700FL07-50	700FL07-50S
Full Set	123FA07-25	123FA07-50	123FA07-50S

NEAR INFRARED

Size, Shape & Part Number			
50% Point	25mm Ø ○	50mm Ø ○	50mm SQ □
750nm	750FL07-25	750FL07-50	750FL07-50S
800nm	800FL07-25	800FL07-50	800FL07-50S
850nm	850FL07-25	850FL07-50	850FL07-50S
900nm	900FL07-25	900FL07-50	900FL07-50S
950nm	950FL07-25	950FL07-50	950FL07-50S
1000nm	100FL07-25	100FL07-50	100FL07-50S
Full Set	124FA07-25	124FA07-50	124FA07-50S

EDGE FILTER SETS



Andover's long wave pass and short wave pass filter sets are available in a wide range of configurations and in three standard sizes. Also available are two variable bandpass filter sets that combine several LWP and SWP filters.



Variable Pass Sets

VISIBLE SWP/LWP SET

Includes seven long wave pass and seven short wave pass filters, providing coverage of the 400–700nm wavelength range.

400nm
450nm
500nm
550nm
600nm
650nm
700nm

Size, Shape & Part Number		
25mm Ø ○	50mm Ø ○	50mm SQ □
126FA97-25	126FA97-50	126FA97-50S

NEAR INFRARED SWP/LWP SET

Includes six long wave pass and six short wave pass filters, providing coverage of the 750–1000nm wavelength range.

750nm
800nm
850nm
900nm
950nm
1000nm

Size, Shape & Part Number		
25mm Ø ○	50mm Ø ○	50mm SQ □
127FA97-25	127FA97-50	127FA97-50S

Short Wave Pass Sets

VISIBLE SWP SET

Includes seven short wave pass filters, spaced at 50nm increments from 400 nm to 700nm.

400nm
450nm
500nm
550nm
600nm
650nm
700nm

Size, Shape & Part Number		
25mm Ø <input type="radio"/>	50mm Ø <input type="radio"/>	50mm SQ <input type="checkbox"/>
123FA07-25	123FA07-50	123FA07-50S

VISIBLE/NEAR INFRARED SWP SET

Combines the two sets listed on the left to create a 13-piece selection of filters that cover the 400–1000nm spectrum.

Size, Shape & Part Number		
25mm Ø <input type="radio"/>	50mm Ø <input type="radio"/>	50mm SQ <input type="checkbox"/>
125FA07-25	125FA07-50	125FA07-50S

NEAR INFRARED SWP SET

Includes six long wave pass filters, spaced at 50nm increments from 750nm to 1000nm.

750nm
800nm
850nm
900nm
950nm
1000nm

Size, Shape & Part Number		
25mm Ø <input type="radio"/>	50mm Ø <input type="radio"/>	50mm SQ <input type="checkbox"/>
124FA07-25	124FA07-50	124FA07-50S

Long Wave Pass Sets

VISIBLE LWP SET

Includes seven long wave pass filters, spaced at 50nm increments from 400nm to 700nm.

400nm
450nm
500nm
550nm
600nm
650nm
700nm

Size, Shape & Part Number		
25mm Ø <input type="radio"/>	50mm Ø <input type="radio"/>	50mm SQ <input type="checkbox"/>
120FA90-25	120FA90-50	120FA90-50S

VISIBLE/NEAR INFRARED LWP SET

Combines the two sets listed on the left to create a 13-piece selection of filters that cover the 400–1000nm spectrum.

Size, Shape & Part Number		
25mm Ø <input type="radio"/>	50mm Ø <input type="radio"/>	50mm SQ <input type="checkbox"/>
122FA90-25	122FA90-50	122FA90-50S

NEAR INFRARED LWP SET

Includes six long wave pass filters, spaced at 50nm increments from 750nm to 1000nm.

750nm
800nm
850nm
900nm
950nm
1000nm

Size, Shape & Part Number		
25mm Ø <input type="radio"/>	50mm Ø <input type="radio"/>	50mm SQ <input type="checkbox"/>
121FA90-25	121FA90-50	121FA90-50S

HARDWOOD STORAGE CASES

- Hardwood construction
- Plated metal hardware
- Custom engraving available



These cases are a great way to store and organize your filters and optics. All cases are made from hardwood, and utilize sturdy plated hinges and clasps. Choose from a variety of case sizes and foam configurations. Custom laser engraving is also available.

CASES WITH PRE-CUT FOAM INSERTS

Outside dimensions L x W x H (approx.)	Foam configuration accommodates:	Part Numbers
3.75" x 3.75" x 2.75"	Six filters up to 25mm dia.	CASE-6-25
4.75" x 4.75" x 2.75"	Eight filters up to 25mm dia.	CASE-8-25
4.75" x 4.75" x 2.75"	Twelve filters up to 25mm dia.	CASE-12-25
3.75" x 3.75" x 3.5"	Six filters up to 50mm sq.	CASE-6-50
6.75" x 3.75" x 3.5"	Eight filters up to 50mm sq.	CASE-8-50
6.75" x 3.75" x 3.5"	Twelve filters up to 50mm sq.	CASE-12-50

CASES WITH FOAM BLANKS

Outside dimensions L x W x H (approx.)	Inside dimensions of base L x W x H (approx.)	Part Numbers
3.5" x 3.5" x 1.5"	2.75" x 2.75" x .5"	CASE-2x2
4.75" x 4.75" x 2.5"	4" x 4" x 1.5"	CASE-4x4
6.75" x 6.75" x 2.5"	6" x 6" x 1.5"	CASE-6x6
9.75" x 9.75" x 2.5"	9" x 9" x 1.5"	CASE-9x9