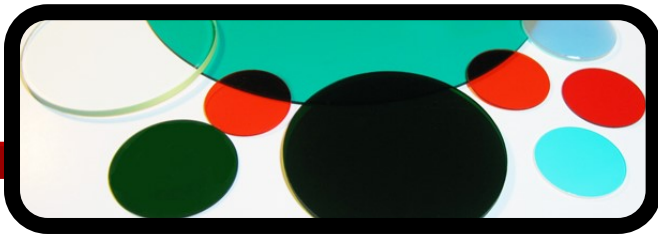


# NVIS & Optical Flat Filter Options

To order Flat Filters, Pynco will need to know the dimensional constraints including thickness, width and length (or diameter for round flat filters). Aside from dimensional characteristics, the second aspect is choosing the appropriate optical filter or combination. Displayed below are a list of optical and NVIS filter options. As mentioned, many of these filters can be combined for custom applications. Other options may include etching, legends, metalized edges, edge wrapping, etc...



### Colored Filter Options

NVIS Green 'A', Lower, MIL-SPEC  
 NVIS Green 'A', Mid, MIL-SPEC  
 NVIS Green 'A', Upper, MIL-SPEC  
 NVIS Green 'B', MIL-SPEC  
 NVIS Yellow Class A, MIL-SPEC  
 NVIS Yellow Class B  
 NVIS White, MIL-SPEC  
 NVIS Red, MIL-SPEC

NVG Green 'A', not MIL-SPEC  
 NVG Green 'B', not MIL-SPEC  
 NVG Yellow, not MIL-SPEC  
 NVG Red, not MIL-SPEC  
 NVG White, not MIL-SPEC

Aviation Green,  
 Aviation Yellow  
 Aviation Red  
 Aviation White  
 Aviation Blue

IPL Red  
 IPL White  
 Air Force Blue-White

**Light Sources:**  
**LED, LCD, Incandescent**  
**Surface Quality: 80-50**

### Optical Filter Options

Absorption Filters  
 Anti-Reflection  
 Band-Pass Filters  
 High Contrast  
 High Brightness  
 ITO  
 Interference Filtering  
 - Short Wave Pass Filters  
 - Long Wave Pass Filters  
 Metallic Coatings  
 Military Spec Compliant Filters  
 Neutral Density  
 Notch Filtering  
 NVG Compatible Filters  
 NVIS Compatible Filters  
 Sunlight Readability  
 VIS / NIR Applications

### More Options

Diffused Surfaces  
 Edge Wrapping  
 Etching  
 Legends  
 Metalized Edges  
 Polished Surfaces  
 Ridged Bonding

## Monolithic Thickness Options

### Flat Filters - Incandescent

<b>NVIS Green 'A' (Low)</b>	<b>NVIS Green 'B'</b>
0.75 mm	1.0 mm
1.0 mm	1.5 mm
1.5 mm	2.0 mm
2.0 mm	2.5 mm
2.5 mm	3.0 mm
3.0 mm	<b>NVIS White</b>
4.0 mm	1.0 mm
<b>NVIS Green 'A' (Mid)</b>	2.0 mm
0.5 mm	<b>NVIS Yellow (Class B)</b>
1.0 mm	1.0 mm
1.5 mm	1.5 mm
2.0 mm	2.0 mm
3.0 mm	2.5 mm
<b>NVIS Green A' (Upper)</b>	3.0 mm
1.0 mm	

### Flat Filters - LED

<b>NVIS Green 'A'</b>
0.5 mm
2.0 mm
<b>NVIS Green 'B'</b>
2.0 mm
<b>NVIS White</b>
0.5 mm
1.0 mm
1.5 mm
2.0 mm
<b>NVIS Yellow (Class B)</b>
2.0 mm

• Contact a Pynco representative today for customized options, pricing and lead times.



# FEATURED NVIS FLAT FILTERS

## P 17000 FLAT FILTER

Commonly used for LED and CFL displays that require NVIS compatibility, this 100mil thick 3009 electro-optical Class B NVIS-White polymeric filter is optimized for an LED source of 2100 Kelvin. While offering full color transmission, anti-reflection properties and scratch resistance, the P17000 also meets a variety of safety and environmental standards.

## P 10300 FLAT FILTER

Often referred to as 'High Performance Green', this filter is designed for an LED source with a peak wavelength of 568 nm. Commonly used with dot-matrix and alpha-numeric displays, the P10300 filter lies between NVIS Green-B and NVIS-Yellow, while the NRA is well within spec and Sunlight Contrast is marginal.

## P9200, P9300, P9400 FLAT FILTERS

These filters were developed to provide a high transmission Class A NVIS-Yellow performance using an incandescent source of 2100 Kelvin. The three filter options differ in their respective color locations in the NVIS Yellow region: P9200 being on the far left, P9300 in the middle and P9400 on the far right. P9200 is preferable for annunciators and P9400 for warning indicators. When needed, Sunlight Readability is an added option that can be considered.

## P8700 FLAT FILTER

This filter provides Class A NVIS-Yellow performance for Warning Indicators using a LED source whose peak wavelength is 568 nm. It is an absorption filter and is therefore not subject to off-axis color shifting. It provides some degree of Sunlight Readability without the use of any additional components.

## P6700, P8100 FLAT FILTERS

The P6700 and P8100 filters are the basis for Class B NVIS-Red Warning Indicators when used with an incandescent lamp of 2100 Kelvin. P8100 sometimes has a slightly higher u' value, otherwise performance of the two is essentially identical. They are not Sunlight Readable as-is, but the option can be added.

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