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# Hoya IR80N (800nm), 50mm Dia., 2.5mm Thick, Colored Glass Longpass Filter

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Stock #66-105 **20+ In Stock**

⊖ 1 ⊕ S\$147<sup>00</sup>

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## Product Downloads

### General

Longpass Filter **Type:**

### Physical & Mechanical Properties

50.00 **Diameter (mm):**

2.50 ±0.2 **Thickness (mm):**

**Dimensional Tolerance (mm):**

±0.38

Bevel:

Protective as needed

## Optical Properties

800±9 **Cut-Off Position  $\lambda_c$  (nm):**

800.00 ±9 **Cut-On Wavelength (nm):**

**Glass/Filter Number:**  
Hoya IR80N

**Substrate:** □  
Colored Glass

**Coating:**  
Uncoated

**Color:**  
Black

**Surface Quality:**  
80-50

**Wavelength:**  
IR

**Reflection Factor  $P_d$ :**  
0.92

**$\Delta\lambda$  (nm):**  
<60

**TH (%):**  
N/A

## Material Properties

**Density (g/cm<sup>3</sup>):**  
2.85

**Transformation Temperature (°C):**  
495

## Regulatory Compliance

**RoHS 2015:**  
Exempt

**Reach 224:**  
Compliant

**Certificate of Conformance:**  
View

## Need different specs or modifications?

Edmund Optics offers comprehensive custom manufacturing services for optical and imaging components tailored to your specific application requirements. Whether in the prototyping phase or preparing for full-scale production, we provide flexible solutions to meet your needs. Our experienced engineers are here to assist—from concept to completion.

Our capabilities include:

- Custom dimensions, materials, coatings, and more
- High-precision surface quality and flatness
- Tight tolerances and complex geometries
- Scalable production—from prototype to volume

Learn more about our [custom manufacturing capabilities](#) or submit an inquiry [here](#).

## Product Details

- UV, VIS and IR Pass Ranges
- VIS Can Be Used for Color Bandpass
- Also Available [Mounted](#)

Hoya Colored Glass Longpass Filters feature a colored glass substrate. These filters are manufactured from substrates with inherently different absorption and transmission properties across a specific spectral region. Hoya Colored Glass Longpass Filters have UV, VIS, and IR pass ranges. A longpass filter has low transmission in the shortwave region (stopband) and high transmission in the longwave region (passband). These filters are also available in a [mounted](#) version.

### Longpass Filter Kits

Longpass filter kits are available in three different options: UV-VIS, VIS, or VIS-NIR. Each kit contains 8 filters in either 12.5mm diameter, 1" diameter, or 2" square.

UV-VIS Kit Contains: WG 295, WG 305, WG 320, L 37, GG 400, GG 420, GG 435, GG 455

VIS Kit Contains: GG 475, GG 495, OG 515, OG 530, OG 550, OG 570, OG 590, RG 610

VIS-NIR Kit Contains: RG 630, RG 665, RG 695, RG 715, RG 780, RG 830, RG 850, RG 1000

### Complete Filter Kits

Complete filter kits are available with 12.5mm diameter, 50.0mm diameter, 1" diameter, or 2" square filters. Each kit contains all 37 Longpass Glass Color Filter types.

Note: Due to supply chain issues, our kits may be delivered with an alternative packaging solution in place of a wooden box. For any questions, please contact [kits@edmundoptics.com](mailto:kits@edmundoptics.com).

## Filter Simulation Software

[Click here](#) to download HOYA's colored glass filter simulation software which can be used to calculate the internal transmittance and external transmission of each HOYA glass type. The software can simulate the performance of individual filters with user specified thickness.

## Technical Information



$\lambda_s$	limit of stopband: specified at 0.001% internal transmittance
$\lambda_c$	cut-off position: specified at 50% internal transmittance
$\lambda_p$	limit of the passband
$t_p$	internal spectral transmittance at $\lambda_p$
$\rho$	density
$T_g$	transformation temperature

## Compatible Mounts

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