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TECHSPEC<sup>®</sup> 12mm Dia. x -20mm FL, Uncoated, UV DCV Lens



UV Fused Silica Plano-Concave (PCV) Lenses



Stock **#48-054** 20+ In Stock

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-

1

+

₹9,498

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| Volume Pricing |                               |
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| Qty 1-5        | ₹9,498 each                   |
| Qty 6-25       | ₹7,629 each                   |
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| General                    |       |
|----------------------------|-------|
| Double-Concave Lens        | Type: |
| Max. Flat Annulus is 0.3mm | Note: |

| Physical & Mechanical Properties    |                                             |
|-------------------------------------|---------------------------------------------|
| 12.00 +0.0/-0.025                   | Diameter (mm):                              |
| 2.00                                | Center Thickness CT (mm):                   |
| ±0.05                               | Center Thickness Tolerance (mm):            |
| <1                                  | Centering (arcmin):                         |
| 11.0                                | Clear Aperture CA (mm):                     |
| 3.78                                | Edge Thickness ET (mm):                     |
| Optical Properties                  |                                             |
| -20.00                              | Effective Focal Length EFL (mm):            |
| Fused Silica (Corning 7980)         | Substrate: <input type="text"/>             |
| 1.67                                | f/#:                                        |
| 0.30                                | Numerical Aperture NA:                      |
| Uncoated                            | Coating:                                    |
| 200 - 2200                          | Wavelength Range (nm):                      |
| -20.67                              | Back Focal Length BFL (mm):                 |
| 587.6                               | Focal Length Specification Wavelength (nm): |
| ±2                                  | Focal Length Tolerance (%):                 |
| -18.64                              | Radius R <sub>1</sub> =R <sub>2</sub> (mm): |
| 40-20                               | Surface Quality:                            |
| 1.5λ                                | Power (P-V) @ 632.8nm:                      |
| λ/4                                 | Irregularity (P-V) @ 632.8nm:               |
| Regulatory Compliance               |                                             |
| Compliant                           | RoHS 2015:                                  |
| Compliant                           | Reach 219:                                  |
| View                                | Certificate of Conformance:                 |
| Japan                               | Country of Origin:                          |
| Edmund Optics India Private Limited | Imported By:                                |

## Product Details

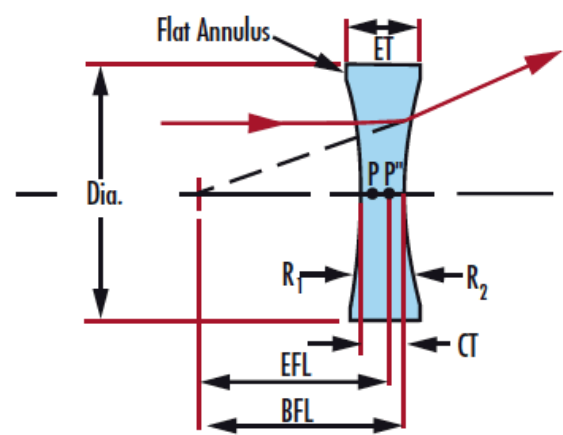
- Negative Focal Lengths for Beam Expansion or Light Projection Applications
- Wavelength Range of 200 - 2200nm
- Popular UV-AR Coating Option Available

TECHSPEC® UV Fused Silica Double-Concave (DCV) Lenses are manufactured utilizing state-of-the-art CNC equipment. Zygo’s GPI-XP Interferometer is used to ensure the surface accuracy and performance of these optics. UV Grade lenses are precision manufactured using research-grade synthetic fused silica. TECHSPEC® UV Fused Silica Double-Concave (DCV) Lenses, in addition to providing excellent transmission characteristics and higher operating temperatures, synthetic fused silica lenses also exhibit exceptional inclusion specification and chemical purity. These lenses make a superior choice for many laser and imaging applications, particularly those involving ultraviolet wavelengths. A broadband anti-reflection coating is available for optimized throughput in the ultraviolet spectrum.

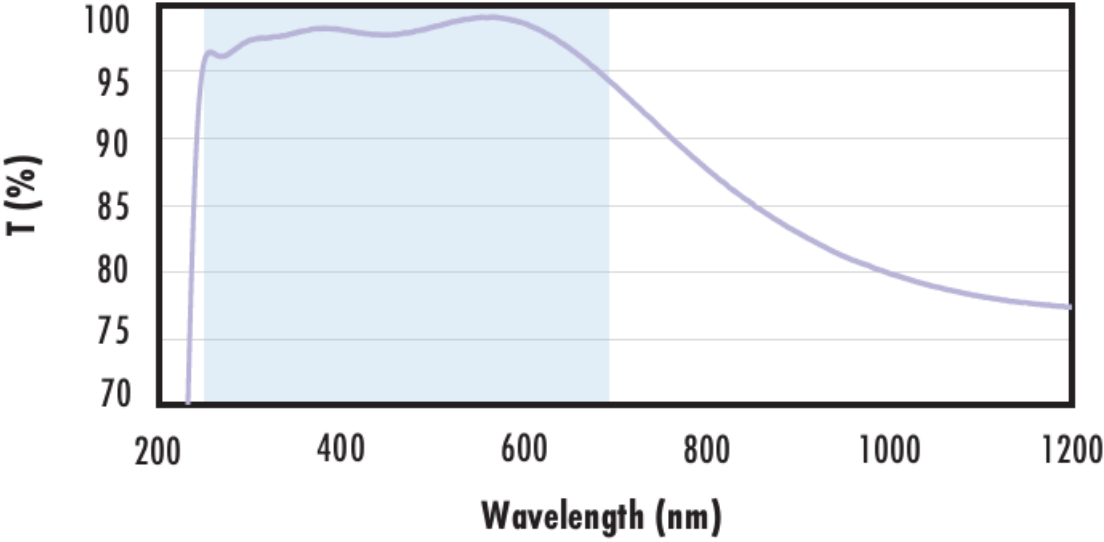
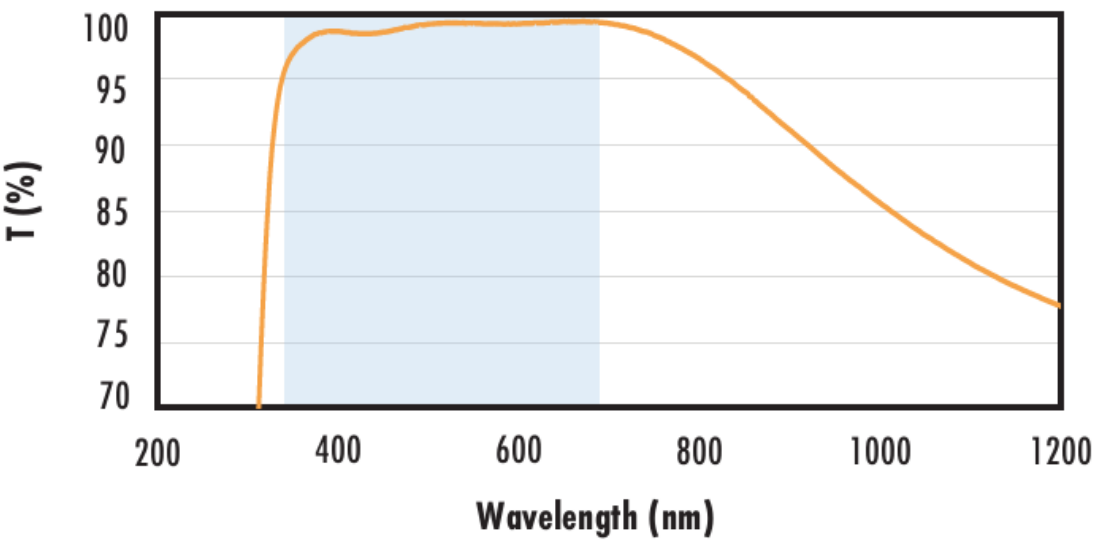
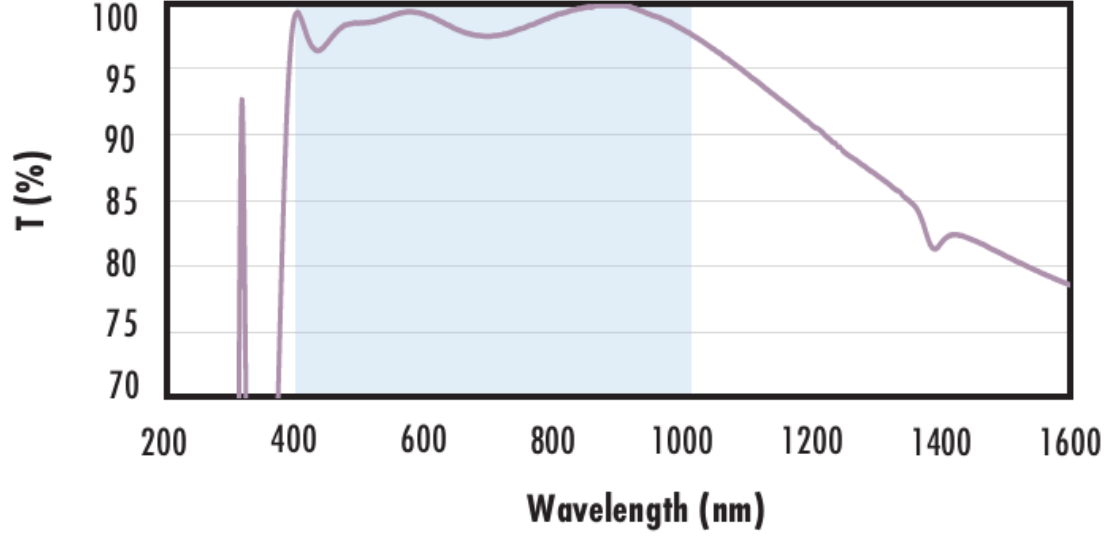
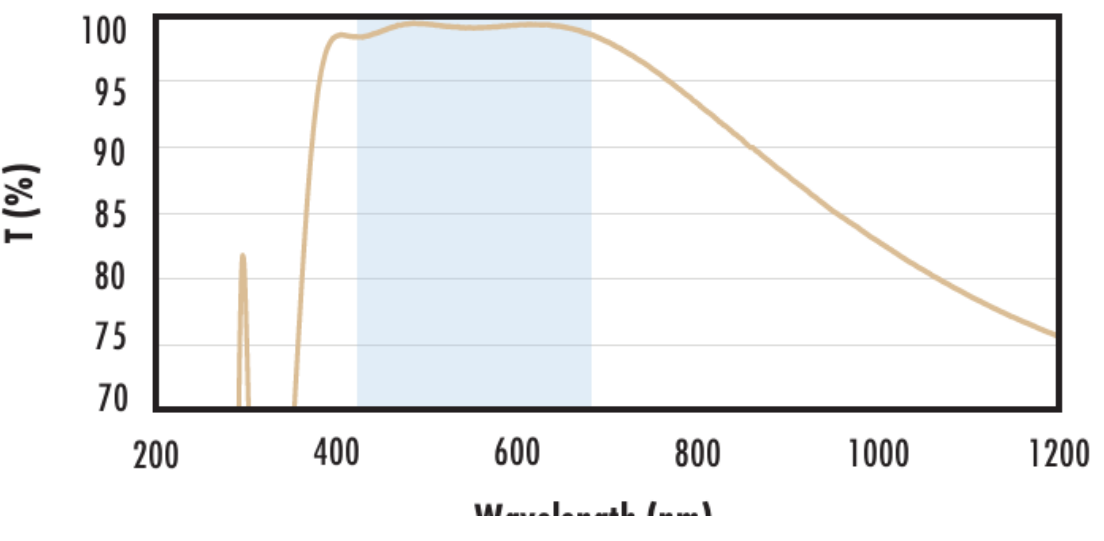
## Technical Information

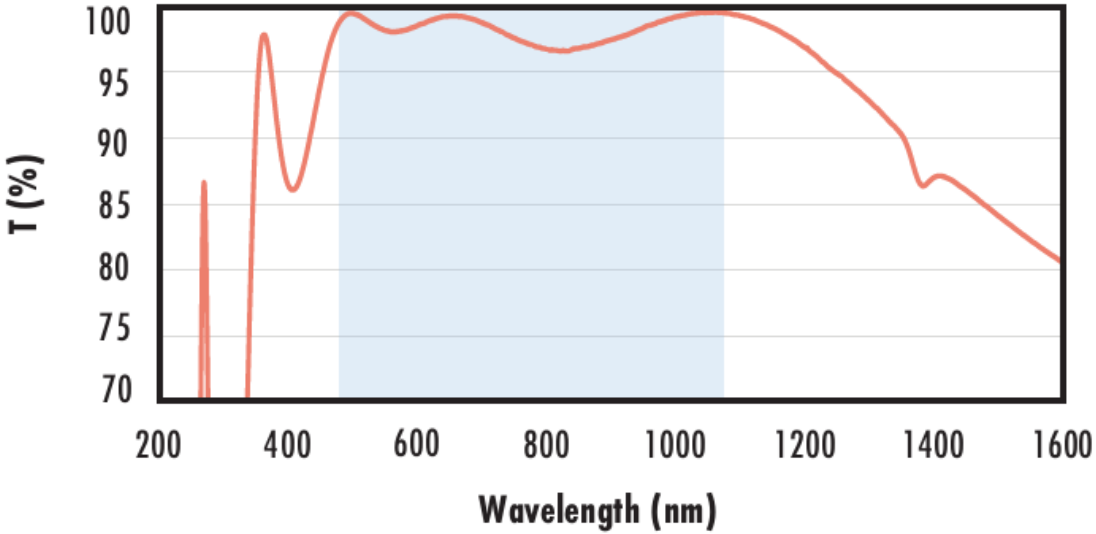
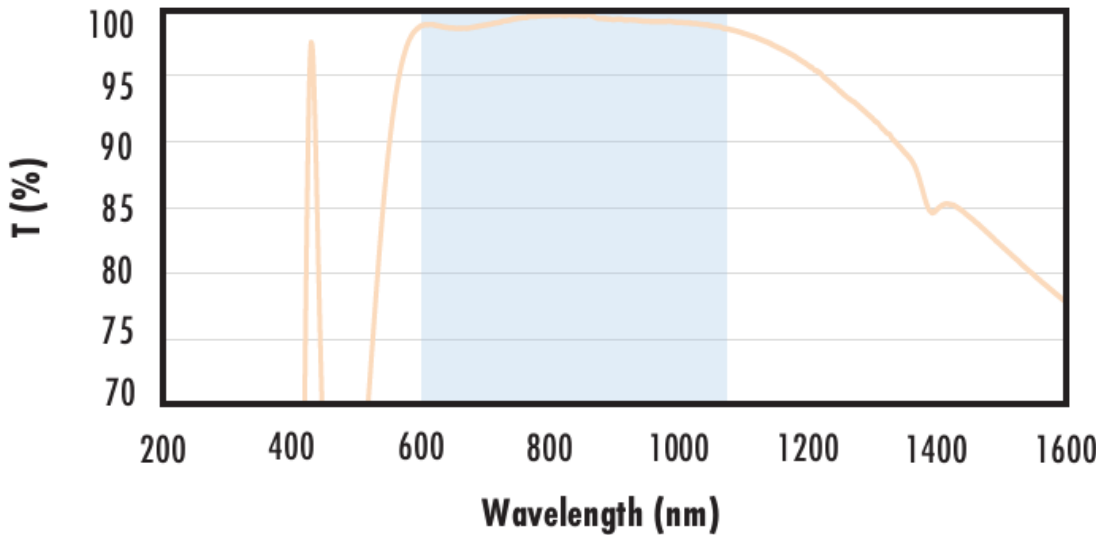
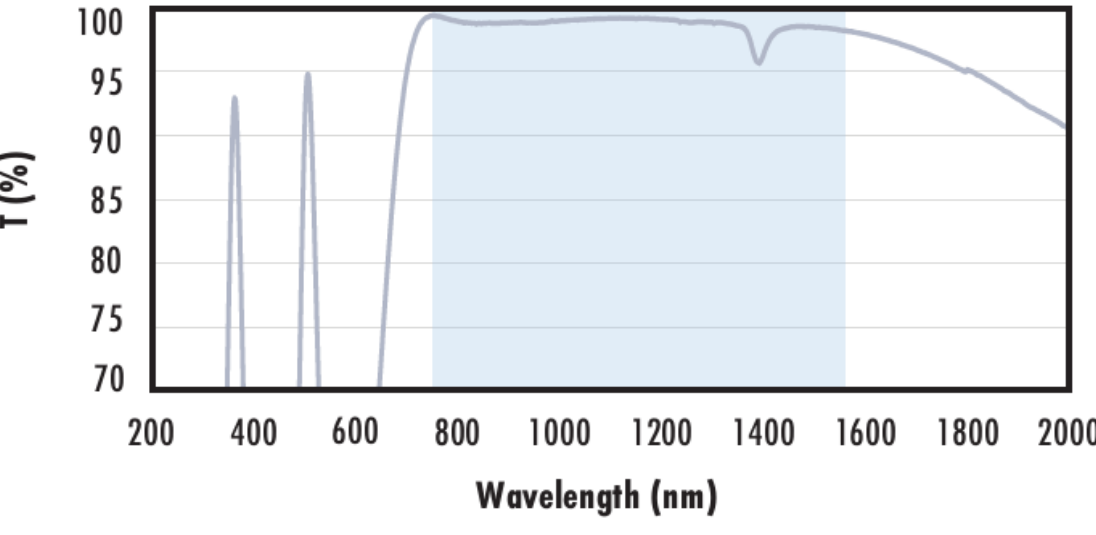


UV FS Transmission Curve



| FUSED SILICA                                                                     |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|----------------------------------------------------------------------------------|--|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>Uncoated Fused Silica<br/>Typical Transmission</b></p>                     |  | <p>Typical transmission of a 3mm thick, uncoated fused silica window across the UV - NIR spectra.</p> <p><a href="#">Click Here to Download Data</a></p>                                                                                                                                                                                                                                                                                                                                                                                |
| <p><b>Fused Silica with MgF<sub>2</sub> Coating<br/>Typical Transmission</b></p> |  | <p>Typical transmission of a 3mm thick fused silica window with MgF<sub>2</sub> (400-700nm) coating at 0° AOI.</p> <p>The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <p><math>R_{avg} \leq 1.75\% @ 400 - 700\text{nm}</math> (N-BK7)</p> <p>Data outside this range is not guaranteed and is for reference only.</p> <p><a href="#">Click Here to Download Data</a></p>                                                                                                   |
| <p><b>Fused Silica with UV-AR Coating<br/>Typical Transmission</b></p>           |  | <p>Typical transmission of a 3mm thick fused silica window with UV-AR (250-425nm) coating at 0° AOI.</p> <p>The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <p><math>R_{abs} \leq 1.0\% @ 250 - 425\text{nm}</math><br/> <math>R_{avg} \leq 0.75\% @ 250 - 425\text{nm}</math><br/> <math>R_{avg} \leq 0.5\% @ 370 - 420\text{nm}</math></p> <p>Data outside this range is not guaranteed and is for reference only.</p> <p><a href="#">Click Here to Download Data</a></p> |

|                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <div data-bbox="573 261 1083 371">Fused Silica with UV-VIS Coating<br/>Typical Transmission</div>       | <p>Typical transmission of a 3mm thick fused silica window with UV-VIS (250-700nm) coating at 0° AOI.</p> <p>The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <p><math>R_{abs} \leq 1.0\%</math> @ 350 - 450nm<br/><math>R_{avg} \leq 1.5\%</math> @ 250 - 700nm</p> <p>Data outside this range is not guaranteed and is for reference only.</p> <p><a href="#">Click Here to Download Data</a></p>                                                   |
| <div data-bbox="567 943 1079 1053">Fused Silica with VIS-EXT Coating<br/>Typical Transmission</div>   | <p>Typical transmission of a 3mm thick fused silica window with VIS-EXT (350-700nm) coating at 0° AOI.</p> <p>The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <p><math>R_{avg} \leq 0.5\%</math> @ 350 - 700nm</p> <p>Data outside this range is not guaranteed and is for reference only.</p> <p><a href="#">Click Here to Download Data</a></p>                                                                                                    |
| <div data-bbox="573 1626 1083 1736">Fused Silica with VIS-NIR Coating<br/>Typical Transmission</div>  | <p>Typical transmission of a 3mm thick fused silica window with VIS-NIR (400-1000nm) coating at 0° AOI.</p> <p>The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <p><math>R_{abs} \leq 0.25\%</math> @ 880nm<br/><math>R_{avg} \leq 1.25\%</math> @ 400 - 870nm<br/><math>R_{avg} \leq 1.25\%</math> @ 890 - 1000nm</p> <p>Data outside this range is not guaranteed and is for reference only.</p> <p><a href="#">Click Here to Download Data</a></p> |
| <div data-bbox="573 2294 1083 2404">Fused Silica with VIS 0° Coating<br/>Typical Transmission</div>   | <p>Typical transmission of a 3mm thick fused silica window with VIS 0° (425-675nm) coating at 0° AOI.</p> <p>The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <p><math>R_{avg} \leq 0.4\%</math> @ 425 - 675nm</p> <p>Data outside this range is not guaranteed and is for reference only.</p> <p><a href="#">Click Here to Download Data</a></p>                                                                                                     |

| wavelength (nm)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| <div><div><div>Fused Silica with YAG-BBAR Coating</div><div>Typical Transmission</div><div></div></div></div> <div><p>Typical transmission of a 3mm thick fused silica window with YAG-BBAR (500-1100nm) coating at 0° AOI.</p><p>The blue shaded region indicates the coating design wavelength range, with the following specification:</p><p><math>R_{abs} \leq 0.25\%</math> @ 532nm<br/><math>R_{abs} \leq 0.25\%</math> @ 1064nm<br/><math>R_{avg} \leq 1.0\%</math> @ 500 - 1100nm</p><p>Data outside this range is not guaranteed and is for reference only.</p><p><a href="#">Click Here to Download Data</a></p></div>           |  |
| <div><div><div>Fused Silica with NIR I Coating</div><div>Typical Transmission</div><div></div></div></div> <div><p>Typical transmission of a 3mm thick fused silica window with NIR I (600 - 1050nm) coating at 0° AOI.</p><p>The blue shaded region indicates the coating design wavelength range, with the following specification:</p><p><math>R_{avg} \leq 0.5\%</math> @ 600 - 1050nm</p><p>Data outside this range is not guaranteed and is for reference only.</p><p><a href="#">Click Here to Download Data</a></p></div>                                                                                                         |  |
| <div><div><div>Fused Silica with NIR II Coating</div><div>Typical Transmission</div><div></div></div></div> <div><p>Typical transmission of a 3mm thick fused silica window with NIR II (750 - 1550nm) coating at 0° AOI.</p><p>The blue shaded region indicates the coating design wavelength range, with the following specification:</p><p><math>R_{abs} \leq 1.5\%</math> @ 750 - 800nm<br/><math>R_{abs} \leq 1.0\%</math> @ 800 - 1550nm<br/><math>R_{avg} \leq 0.7\%</math> @ 750 - 1550nm</p><p>Data outside this range is not guaranteed and is for reference only.</p><p><a href="#">Click Here to Download Data</a></p></div> |  |

## Custom

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](#).

## Compatible Mounts