

TECHSPEC® 12.7mm Diameter x 50mm FL, 350-700nm, Ultrafast Thin PCX Lens



Stock **#22-633** **15 In Stock**

[Other Coating Options](#)

⊖ 1 ⊕ £87²⁰

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Volume Pricing	
Qty 1-5	£87.20 each
Qty 6-25	£77.20 each
Qty 26-49	£69.76 each
Need More?	Request Quote

! Prices shown are exclusive of VAT/local taxes

Product Downloads

General

Plano-Convex Lens **Type:**

Physical & Mechanical Properties

12.70 +0.00/-0.10 **Diameter (mm):**

Centering (arcmin):

<3

Center Thickness CT (mm):
1.50 ±0.10

Edge Thickness ET (mm):
0.61

Clear Aperture CA (mm):
11.43

Bevel:
Protective as needed

Optical Properties

Effective Focal Length EFL (mm):
50.06 @ 587.6nm

Back Focal Length BFL (mm):
49.03

Coating:
MS-EXT (350-700nm)

Coating Specification:
 $R_{avg} \leq 0.5\%$ @ 350 - 700nm

Substrate:
[Fused Silica \(Corning 7980\)](#)

Surface Quality:
20-10

Power (P-V) @ 632.8nm:
1.5λ

Irregularity (P-V) @ 632.8nm:
λ/8

Focal Length Tolerance (%):
±1

Radius R₁ (mm):
22.95

f#:
3.94

Numerical Aperture NA:
0.13

Design Wavelength DWL (nm):
587.6

Wavelength Range (nm):
350 - 700

Angle of Incidence (°):
0

Damage Threshold, By Design:
5 J/cm² @ 532nm, 10ns

Regulatory Compliance

RoHS 2015:
[Compliant](#)

Certificate of Conformance:
[View](#)

Reach 250:
[Compliant](#)

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

- Ultra-Thin Center Thickness to Limit GDD
- Low Loss Broadband IBS Anti-Reflection Coating
- Ideal for Ultrafast and Laser Optics Applications
- UV or IR Grade Fused Silica Substrates

TECHSPEC® Ultrafast Thin Plano-Convex Lenses are designed with an ultra-thin center thickness to provide a low group delay dispersion (GDD) for ultrafast laser pulses. TECHSPEC Ultrafast Thin Plano-Convex Lenses are ideal for collecting and focusing light from laser sources and their corresponding harmonics, including Ti:sapphire, Yb:YAG, and Nd:YAG, Holmium, and Thulium lasers. These thin PCX lenses are available in standard sizes with effective focal lengths from 50mm to 2000mm.

IR grade fused silica differs from UV grade fused silica by its reduced amount of OH⁻ ions, resulting in higher transmission throughout the NIR spectrum and reduction of transmission in the UV spectrum.

Technical Information

