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**TECHSPEC® 12mm Dia. x 9mm FL, Uncoated, Hybrid Asphere**



TECHSPEC® Plastic Hybrid Aspheric Lenses

Stock #21-222 **20+ In Stock**

⊖ 1 ⊕ €96.<sup>00</sup>

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Volume Pricing	
Qty 1-24	€96,00 each
Qty 25-99	€73,00 each
Qty 100-249	€56,00 each
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ⓘ Prices shown are exclusive of VAT/local taxes

Product Downloads

**General**

Aspheric Lens **Type:**

**Physical & Mechanical Properties**

12.00 ±0.15 **Diameter (mm):**

**Clear Aperture CA (mm):**

10.00

Edge Thickness ET (mm):

2.51

Center Thickness CT (mm):

5.60 ±0.20

Bevel:

Protective as needed

Shape of Back Surface:

Convex

## Optical Properties

Effective Focal Length EFL (mm):

9.00 @ 587.6nm

Numerical Aperture NA:

0.67

Back Focal Length BFL (mm):

5.57

Substrate:

Zeonex K22R

Aspheric Design Wavelength (nm):

587.6

Coating:

Uncoated

Surface Quality:

80-50

f#:

0.75

Radius R<sub>2</sub> (mm):

48.3

Wavelength Range (nm):

475 - 675

Conjugate Distance:

Infinite

Focal Length Specification Wavelength (nm):

587.60

## Environmental & Durability Factors

Operating Temperature (°C):

-30 to +70

## Regulatory Compliance

Certificate of Conformance:

[View](#)

## Product Details

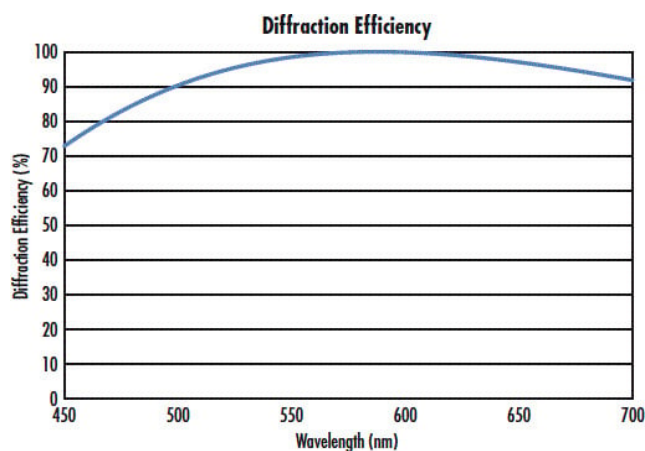
- Color-Corrected Plastic Aspheres
- Diffractive Surface Minimizes Chromatic Aberration
- Low-Cost, Molded Design

TECHSPEC® Plastic Hybrid Aspheric Lenses are molded aspheric lenses with diffraction-limited designs that eliminate chromatic aberrations caused by broadband light sources. These hybrid aspheric lenses are ideal for imaging or ophthalmic applications, or for use with tunable lasers or broadband or multispectral illumination sources. The [aspheric lens](#) eliminates spherical aberration, while the diffractive surface features a negative optical dispersion to yield excellent color correction.

TECHSPEC Plastic Hybrid Aspheric Lenses are similar in performance, but offer several advantages to our [TECHSPEC Aspherized Achromatic Lenses](#). Hybrid aspheric lenses feature all-plastic, monolithic designs that are much lighter than comparable aspherized achromatic lenses. These optical lenses are also available in higher numerical apertures. However, plastic hybrid aspheric lenses are limited by the inherent diffraction efficiency of the aspheric surface, yielding lower overall transmission than comparable aspherized achromatic lenses.

These lenses won the 2011 Prism Award for Optics and Optical Components.

## Technical Information



**Monochromatic Spot Size Comparison for  
25mm Diameter f/1.2 Optical Components**

