

# 1.0mm Diameter, Sapphire Half-Ball Lens



Stock **#48-428** 20+ In Stock

-

1

+

€31<sup>.50</sup>

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| Volume Pricing |                               |
|----------------|-------------------------------|
| Qty 1-10       | €31,50 each                   |
| Qty 11-49      | €25,00 each                   |
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 Prices shown are exclusive of VAT/local taxes

Product Downloads

| General                          |                |
|----------------------------------|----------------|
| Half-Ball Lens                   | Type:          |
| Physical & Mechanical Properties |                |
| 1.00                             | Diameter (mm): |
| 0.50                             | Radius R (mm): |

|         |                             |
|---------|-----------------------------|
| 3.98    | Specific Gravity (g/cm³):   |
| 0.50    | Thickness (mm):             |
| 300,000 | Compressive Strength (psi): |
| ±2.54   | Diameter Tolerance (µm):    |

Optical Properties

|                                            |                                        |
|--------------------------------------------|----------------------------------------|
| Sapphire (Al <sub>2</sub> O <sub>3</sub> ) | Substrate: <input type="checkbox"/>    |
| Uncoated                                   | Coating:                               |
| 1.77                                       | Index of Refraction (n <sub>d</sub> ): |
| 0.64                                       | Sphericity (µm):                       |

Environmental & Durability Factors

|         |                           |
|---------|---------------------------|
| 2053.00 | Melting Temperature (°C): |
|---------|---------------------------|

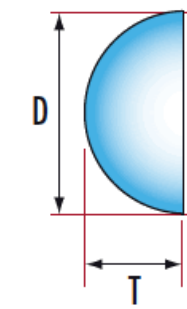
Regulatory Compliance

|                           |                             |
|---------------------------|-----------------------------|
| <a href="#">Compliant</a> | RoHS 2015:                  |
| <a href="#">View</a>      | Certificate of Conformance: |
| <a href="#">Compliant</a> | Reach 247:                  |

## Product Details

- Excellent for Severe Environments
  - High Chemical Stability
  - [Sapphire and Ruby Ball Lenses](#) Also Available
- Sapphire and Ruby Half-Ball Lenses feature a very short back focal length with the convenience of a flat surface for easy mounting. Sapphire features a high index of refraction and excellent broadband transmission characteristics. Ruby half-ball (hemispherical) lenses are easier to see and, therefore, easier to handle for physical applications. Sapphire and Ruby Half-Ball Lenses are very chemically stable and are great for severe environments, high-temperature applications, and applications requiring high melting points. Typical applications include fiber communication, endoscopy, microscopy, optical pick-up devices, and laser measurement systems.

## Technical Information



## 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](#).