

[All Products](#) / [Optics](#) / [Optical Lenses](#) / [Ball and Condenser Lenses](#)

# Sapphire and Ruby Half-Ball Lenses



- Excellent for Severe Environments
- High Chemical Stability
- [Sapphire and Ruby Ball Lenses](#) Also Available

## Common Specifications

### Physical & Mechanical Properties

Specific Gravity (g/cm <sup>3</sup> ):	3.98	Compressive Strength (psi):	300,000
Diameter Tolerance (μm):	±2.54		

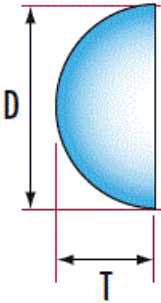
### Optical Properties

Coating:	Uncoated		
Index of Refraction (n <sub>d</sub> ):	1.77	Sphericity (μm):	0.64

### Environmental & Durability Factors

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

Technical Information



## Products

Dia. (mm)	Substrate	Type	Coating	Stock Number	Price	Buy
0.40	Sapphire (Al <sub>2</sub> O <sub>3</sub> )	Half-Ball Lens	Uncoated	<a href="#">#63-754</a>	C\$43.09 <a href="#">Volume Pricing</a>	14 In Stock
0.50	Sapphire (Al <sub>2</sub> O <sub>3</sub> )	Half-Ball Lens	Uncoated	<a href="#">#49-553</a>	C\$43.09 <a href="#">Volume Pricing</a>	20+ In Stock
1.00	Sapphire (Al <sub>2</sub> O <sub>3</sub> )	Half-Ball Lens	Uncoated	<a href="#">#48-428</a>	C\$43.09 <a href="#">Volume Pricing</a>	20+ In Stock
2.00	Sapphire (Al <sub>2</sub> O <sub>3</sub> )	Half-Ball Lens	Uncoated	<a href="#">#48-429</a>	C\$43.09 <a href="#">Volume Pricing</a>	20+ In Stock
2.50	Sapphire (Al <sub>2</sub> O <sub>3</sub> )	Half-Ball Lens	Uncoated	<a href="#">#49-554</a>	C\$43.09 <a href="#">Volume Pricing</a>	20+ In Stock
3.18	Sapphire (Al <sub>2</sub> O <sub>3</sub> )	Half-Ball Lens	Uncoated	<a href="#">#48-430</a>	C\$43.09 <a href="#">Volume Pricing</a>	20+ In Stock
4.00	Sapphire (Al <sub>2</sub> O <sub>3</sub> )	Half-Ball Lens	Uncoated	<a href="#">#49-555</a>	C\$46.28 <a href="#">Volume Pricing</a>	20+ In Stock
4.76	Sapphire (Al <sub>2</sub> O <sub>3</sub> )	Half-Ball Lens	Uncoated	<a href="#">#48-431</a>	C\$46.28 <a href="#">Volume Pricing</a>	20+ In Stock
5.00	Sapphire (Al <sub>2</sub> O <sub>3</sub> )	Half-Ball Lens	Uncoated	<a href="#">#48-432</a>	C\$53.87 <a href="#">Volume Pricing</a>	20+ In Stock
6.00	Sapphire (Al <sub>2</sub> O <sub>3</sub> )	Half-Ball Lens	Uncoated	<a href="#">#49-556</a>	C\$58.25 <a href="#">Volume Pricing</a>	20+ In Stock
6.35	Sapphire (Al <sub>2</sub> O <sub>3</sub> )	Half-Ball Lens	Uncoated	<a href="#">#48-433</a>	C\$65.44 <a href="#">Volume Pricing</a>	20+ In Stock
0.50	Ruby Doped Sapphire (Al <sub>2</sub> O <sub>3</sub> )	Half-Ball Lens	Uncoated	<a href="#">#49-557</a>	C\$43.89 <a href="#">Volume Pricing</a>	20+ In Stock
1.00	Ruby Doped Sapphire (Al <sub>2</sub> O <sub>3</sub> )	Half-Ball Lens	Uncoated	<a href="#">#49-558</a>	C\$43.89 <a href="#">Volume Pricing</a>	20+ In Stock
2.00	Ruby Doped Sapphire (Al <sub>2</sub> O <sub>3</sub> )	Half-Ball Lens	Uncoated	<a href="#">#49-559</a>	C\$43.89 <a href="#">Volume Pricing</a>	17 In Stock
2.50	Ruby Doped Sapphire (Al <sub>2</sub> O <sub>3</sub> )	Half-Ball Lens	Uncoated	<a href="#">#49-560</a>	C\$43.89 <a href="#">Volume Pricing</a>	20+ In Stock
3.18	Ruby Doped Sapphire (Al <sub>2</sub> O <sub>3</sub> )	Half-Ball Lens	Uncoated	<a href="#">#49-561</a>	C\$43.89 <a href="#">Volume Pricing</a>	20+ In Stock

4.00	Ruby Doped Sapphire (Al <sub>2</sub> O <sub>3</sub> )	Half-Ball Lens	Uncoated	<a href="#">#49-562</a>	C\$47.48 <a href="#">Volume Pricing</a>	15 In Stock
4.76	Ruby Doped Sapphire (Al <sub>2</sub> O <sub>3</sub> )	Half-Ball Lens	Uncoated	<a href="#">#49-563</a>	C\$47.48 <a href="#">Volume Pricing</a>	20+ In Stock
5.00	Ruby Doped Sapphire (Al <sub>2</sub> O <sub>3</sub> )	Half-Ball Lens	Uncoated	<a href="#">#49-564</a>	C\$54.66 <a href="#">Volume Pricing</a>	20+ In Stock
6.00	Ruby Doped Sapphire (Al <sub>2</sub> O <sub>3</sub> )	Half-Ball Lens	Uncoated	<a href="#">#49-565</a>	C\$59.05 <a href="#">Volume Pricing</a>	20+ In Stock
6.35	Ruby Doped Sapphire (Al <sub>2</sub> O <sub>3</sub> )	Half-Ball Lens	Uncoated	<a href="#">#49-566</a>	C\$66.23 <a href="#">Volume Pricing</a>	20+ In Stock



Copyright 2023, Edmund Optics Inc., 101 East Gloucester Pike, Barrington, NJ 08007-1380 USA

Phone: 1-800-363-1992 :

[www.edmundoptics.com](http://www.edmundoptics.com)