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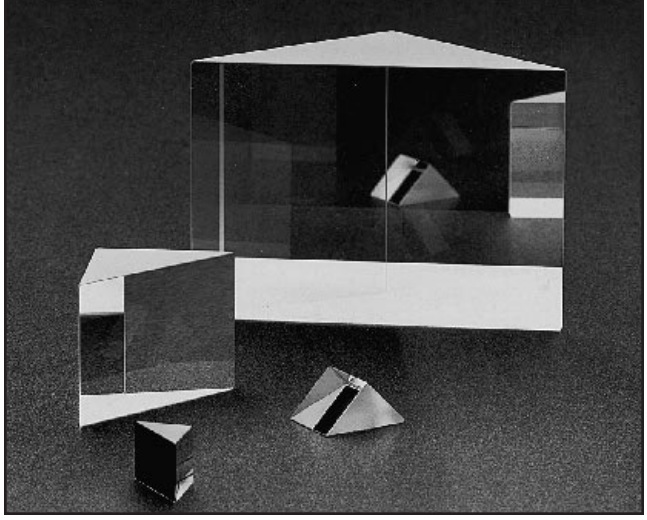
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Available in:
✔ **Production Quantities**

Right-Angle Prisms

Right-angle prisms can be used to direct a beam of light at 90 degrees from the incident or to retroreflect a beam. A right-angle prism may also be used as a front surface mirror.

- High transmission can be achieved, using the hypotenuse face in total internal reflection (TIR), with an antireflection coating on the entrance and exit faces.
- The prism can be used as an internal or external mirror by specifying a metallic coating on the hypotenuse.

Most of the coatings described in Chapter 5, *Optical Coatings*, can be applied to prism surfaces. The commonly specified antireflection coatings and high-reflection coatings are listed here for your convenience. Please specify which surfaces require coatings.

SPECIFICATIONS: RIGHT-ANGLE PRISMS

Dimension Tolerance: ±0.15 mm
Surface Flatness: λ/2 at 632.8 nm over clear aperture
Angle: *See table (polished to polished surfaces)*
Material: BK7, grade A fine annealed
Surface Quality: 60-40 scratch and dig
Clear Aperture: 90% of edge dimension
Chamfer: Slight protective bevel at 45°
Coatings: Optional antireflection and reflection

Coatings for Right-Angle Prisms

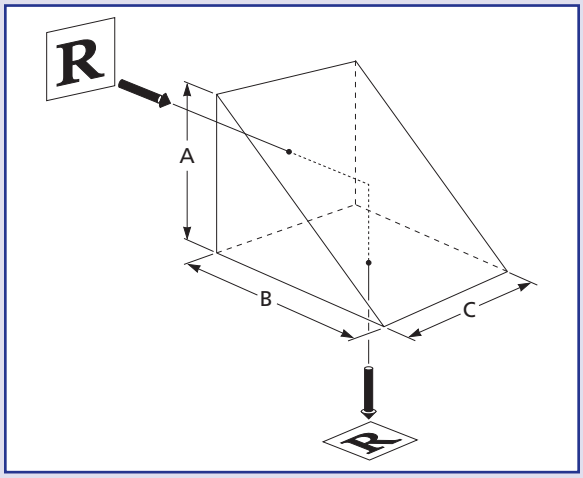
Type	COATING SUFFIX
Antireflection	
MgF_2	/066
HEBBAR™ for Visible	/078
HEBBAR™ for Diode Lasers	/076
V-Coating for 632.8 nm	/123
Reflective	
Protected Aluminum	/011
Enhanced Aluminum	/023
MAXBRIte™ for Visible	/001
MAXBRIte™ for Diode Lasers	/003
Internal Silver	/036

Note: Please refer to Chapter 5, Optical Coatings, for additional coating options.

APPLICATION NOTE

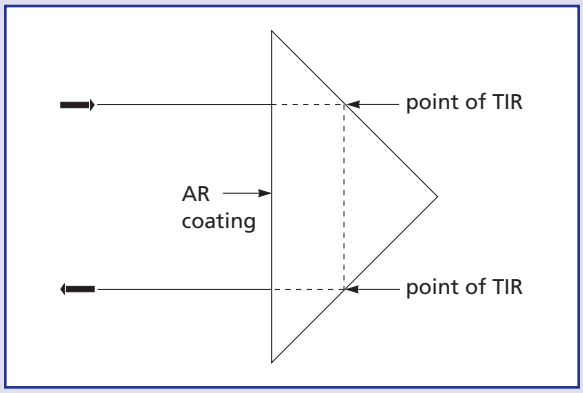
Right-Angle Prism as a Mirror

Aluminized hypotenuse is coated with /011 protected aluminum and an overcoat of black paint which is acetone soluble for easy removal.



Right-Angle Prism as a Retroreflector

An antireflection coating on the hypotenuse improves the efficiency of the prism as a retroreflector as long as acceptance angle limitations for TIR on the roof faces are not exceeded.



Right-Angle Glass Prisms, Aluminized Hypotenuse with Black Overcoat

A=B=C (mm)	PRODUCT NUMBER ±30 arc sec	±3 arc min
3.2	—	01 PRA 001
4.0	—	01 PRA 411
4.8	—	01 PRA 413
5.0	01 PRT 003	01 PRA 003
6.4	—	01 PRA 005
8.0	—	01 PRA 007
10.0	01 PRT 009	01 PRA 009
12.7	01 PRT 011	01 PRA 011
15.0	—	01 PRA 013
16.5	—	01 PRA 015
18.0	—	01 PRA 017
20.0	01 PRT 019	01 PRA 019
25.0	—	01 PRA 020
25.4	01 PRT 021	01 PRA 021
30.0	01 PRT 023	01 PRA 023
35.0	—	01 PRA 025
38.1	—	01 PRA 027
40.0	01 PRT 029	01 PRA 029
45.0	—	01 PRA 033
50.0	—	01 PRA 034
50.8	01 PRT 035	01 PRA 035
55.0	—	01 PRA 037
63.5	—	01 PRA 041
76.2	—	01 PRA 045
100.0	—	01 PRA 055

Note: For antireflection coatings on prism legs, append coating suffix.

Uncoated Right-Angle Glass Prisms

A=B=C (mm)	PRODUCT NUMBER ±30 arc sec	±3 arc min
0.7	—	01 PRS 401
1.0	—	01 PRS 403
1.3	—	01 PRS 405
2.0	—	01 PRS 407
2.7	—	01 PRS 409
3.2	—	01 PRS 001
4.0	—	01 PRS 411
4.8	—	01 PRS 413
5.0	01 PRP 003	01 PRS 003
6.4	—	01 PRS 005
8.0	—	01 PRS 007
10.0	01 PRP 009	01 PRS 009
12.7	01 PRP 011	01 PRS 011
15.0	—	01 PRS 013
16.5	—	01 PRS 015
18.0	—	01 PRS 017
20.0	01 PRP 019	01 PRS 019
25.0	—	01 PRS 020
25.4	01 PRP 021	01 PRS 021
30.0	01 PRP 023	01 PRS 023
35.0	—	01 PRS 025
38.1	—	01 PRS 027
40.0	01 PRP 029	01 PRS 029
45.0	—	01 PRS 033
50.0	—	01 PRS 034
50.8	01 PRP 035	01 PRS 035
55.0	—	01 PRS 037
63.5	—	01 PRS 041
76.2	—	01 PRS 045
100.0	—	01 PRS 055

Note: For antireflection coatings on prism legs, append coating suffix.

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