

NEWS **Release**



ABRISA Technologies

200 S. Hallock Drive
Santa Paula, CA 93060
Contact: Jim Walker
Phone: (310) 987-0178

E-mail: jwalker@abrisatechnologies.com - Web Site: www.abrisatechnologies.com

Media Contact: Lori Appel
Viewfinders Visual Communications

3401 West 5th St. #110,
Oxnard, CA 93030

Phone: (805) 984-3117 ext. 104

Cell: (805) 312-5873

loriappel@viewfindersvisual.com

Abrisa Technologies Cold Mirrors Reflect Ultra Violet (UV) or Visible Energy while Transmitting Heat Energy

Santa Paula, CA – The ZC&R Coatings for Optics (ZC&R) division of Abrisa Technologies provides a line of cold mirrors that reflect Ultra Violet (UV) or visible energy while transmitting the infrared (heat energy). Cold mirror coatings are vacuum deposited multi-layer dielectric films that can operate in temperatures of $\geq 400^{\circ}\text{C}$ and are durable and easy-to-clean.

The glass substrate used for our cold mirrors is SCHOTT Borofloat[®], a versatile borosilicate glass substrate with excellent thermal properties. Thickness availability is 1.1mm, 1.75mm, and 3.3mm. Cold mirror sizes are available up to 27" diameter.

Cold Mirrors offered include:

- **UV Cold Mirror** – This cold mirror is specifically designed to reflect more than 95% average of ultra-violet (UV) rays from 350-450 nm and transmit more than 90% average 550-1200 nm at 45 degrees angle of incidence. Custom angles of incidence can be designed to specification.
- **CM-VS-STD 45 Degree Cold Mirror** – This cold mirror filter is designed to operate at 45 degrees. It reflects the visible spectrum and transmits heat (infrared). The average reflectance is greater than 95% from 425 to 650 nm. Transmission is more than 85% average from 800 to 1200 nm. These filters are commonly coated for normal incidence applications as well. Custom angles of incidence can be designed to specification.
- **CM0-ES-STD 0 Degree Cold Mirror** – This cold mirror filter is designed to operate at 0 degrees. It reflects the visible spectrum and transmits heat (infrared). The average reflectance is greater than 95% from 425 to 650 nm. Transmission is more than 85% average from 800 to 1200 nm. These filters are commonly coated for normal incidence applications as well. Custom angles of incidence can be designed to specification.

Typical applications for cold mirrors include:

- Laser diode applications
- Scanner and bar code readers
- Dielectric mirrors in sensor technology
- Filter applications – cold light
- Lighting systems

Generally speaking, cold mirrors provided by Abrisa Technologies/ZC&R have excellent optical characteristics, high ultra violet (UV) or visible reflection, operate at high temperatures, provide good infrared transmission, have high mechanical stability, and provide effective heat/light separation.

ZC&R Cold mirrors meet adherence and abrasion resistance as per MIL-C-675C and ISO 9211-3.

200 S. Hallock Drive • Santa Paula, CA 93060 • Tel: (877) 622-7472 Fax: (805) 525-8604
Web: www.abrisatechnologies.com • E-Mail: info@abrisatechnologies.com

About Abrisa Technologies: [Abrisa Technologies](http://www.abrisatechnologies.com) is headquartered in Santa Paula, California and is comprised of three divisions that provide precision optical products and services. The divisions include; Abrisa Industrial Glass, Inc., Sycamore Glass Components, and ZC&R Coatings for Optics. As a market leader in optical coatings and high quality precision glass fabrication, Abrisa Technologies is dedicated to providing premier customer service and cost-effective products that fit each customer's exacting requirements. www.abrisatechnologies.com.

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