



Our Coatings

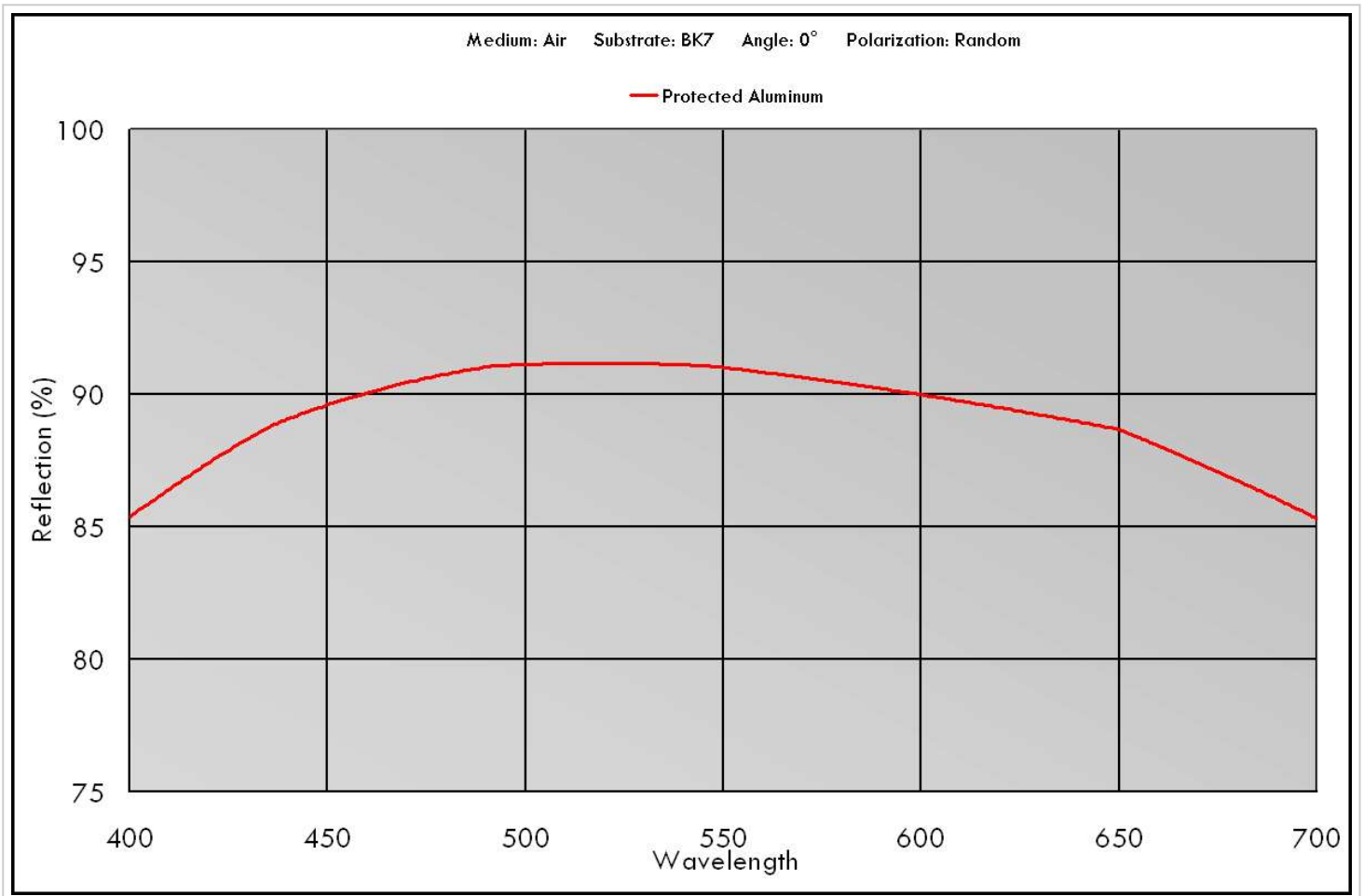
We specialize in optical thin-film coatings, serving a wide range of industries such as the Medical, Aerospace, Defense, Optical Instrumentation, Inspection Equipment, Telecommunications, Imaging, Displays, Lighting & Scanning, Laser and Semiconductor fields.

Mirror Coatings



Protected Aluminum

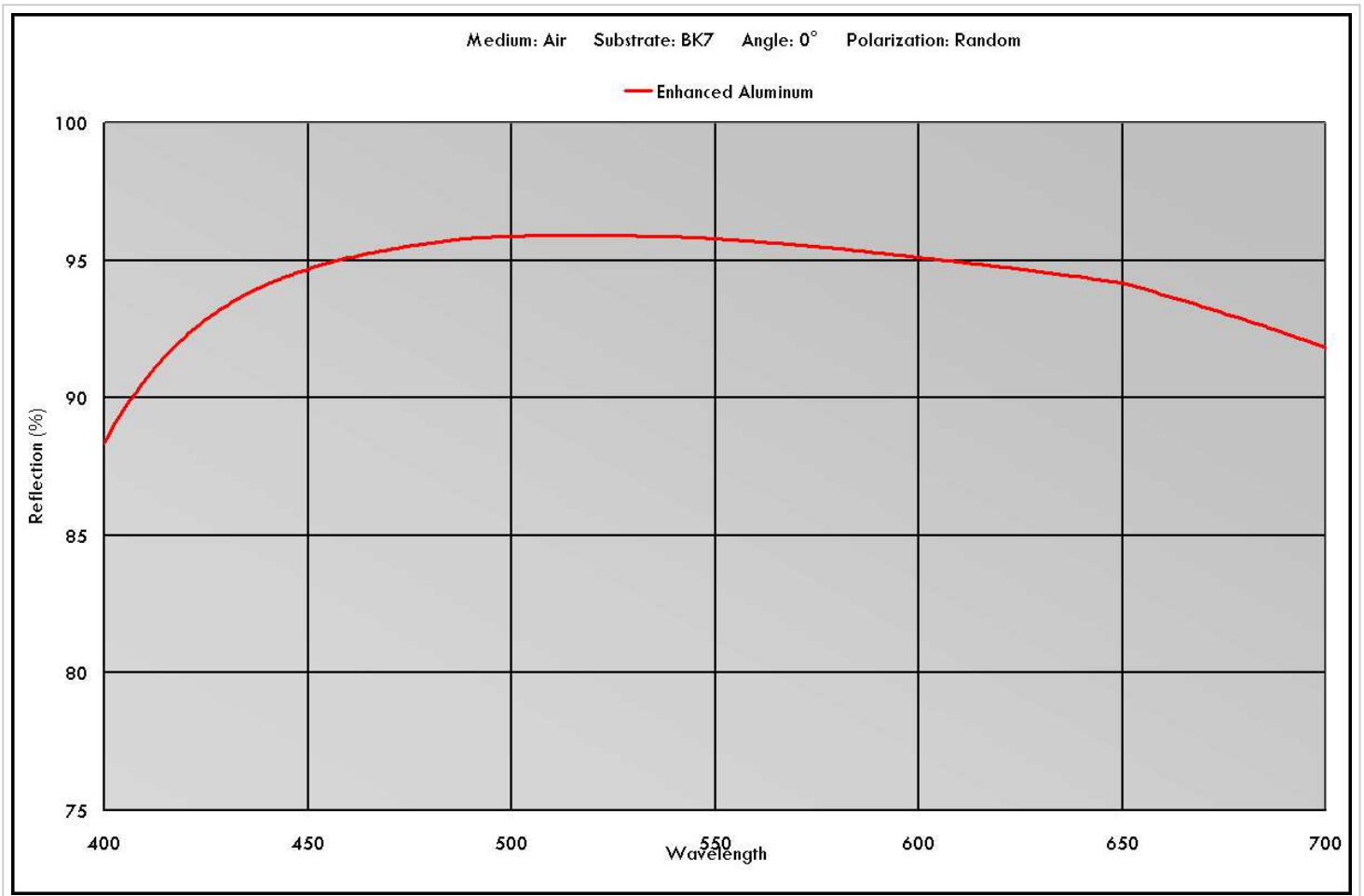
This mirror offers solid performance. The design provides approximately an 88% average surface reflection in the visible spectrum. It has a silicon monoxide, SiO, overcoat to help provide a higher resilience to abrasion than bare aluminum.



Larger graph view

Enhanced Aluminum

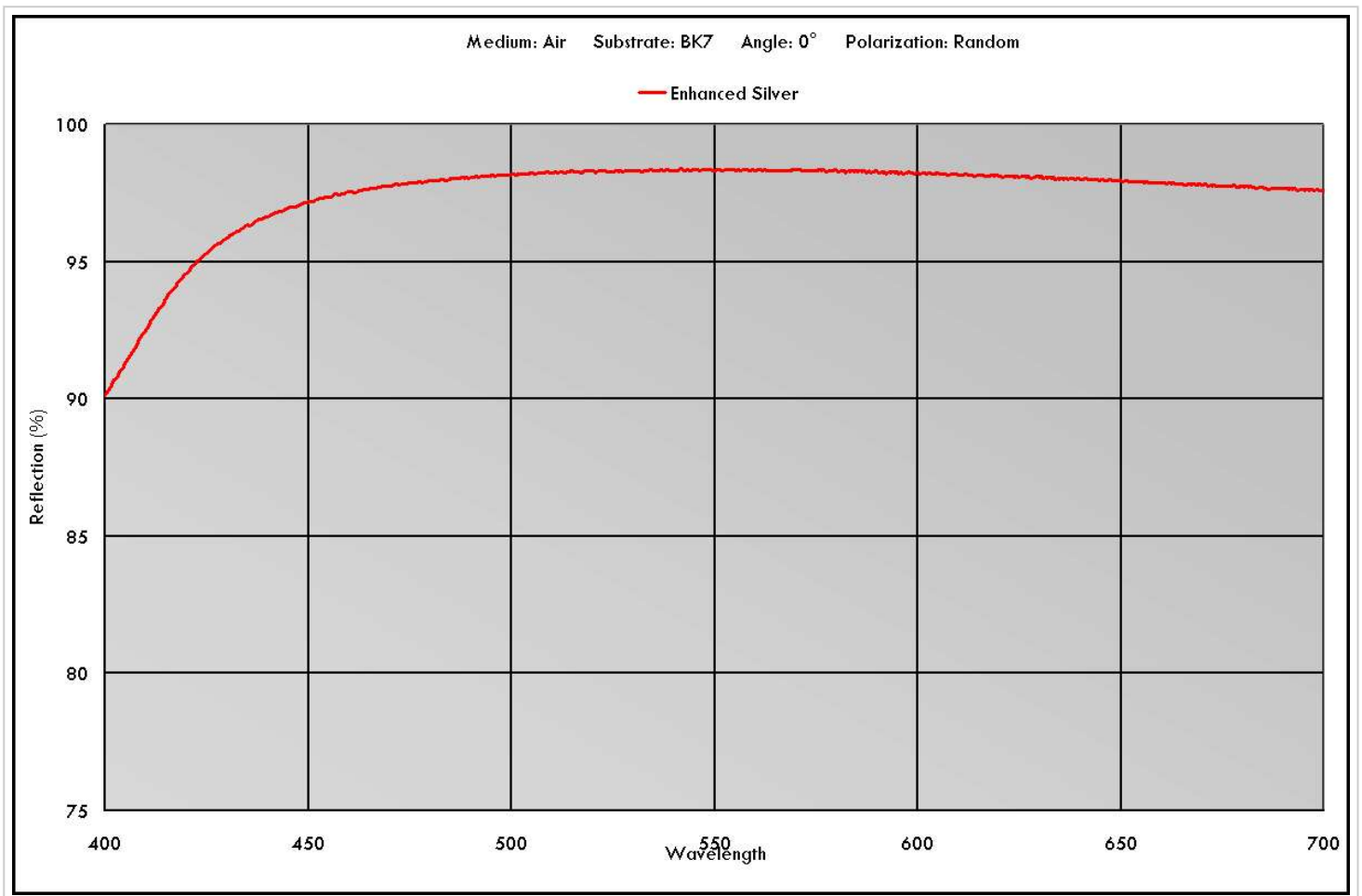
The enhanced aluminum design provides a better performance than protected aluminum coating. It averages about 94% reflection in the visible spectrum. The coating incorporates the use of a dielectric stack on the aluminum which provides a better resistance to abrasion than the raw metal.



Larger graph view

Protected Silver

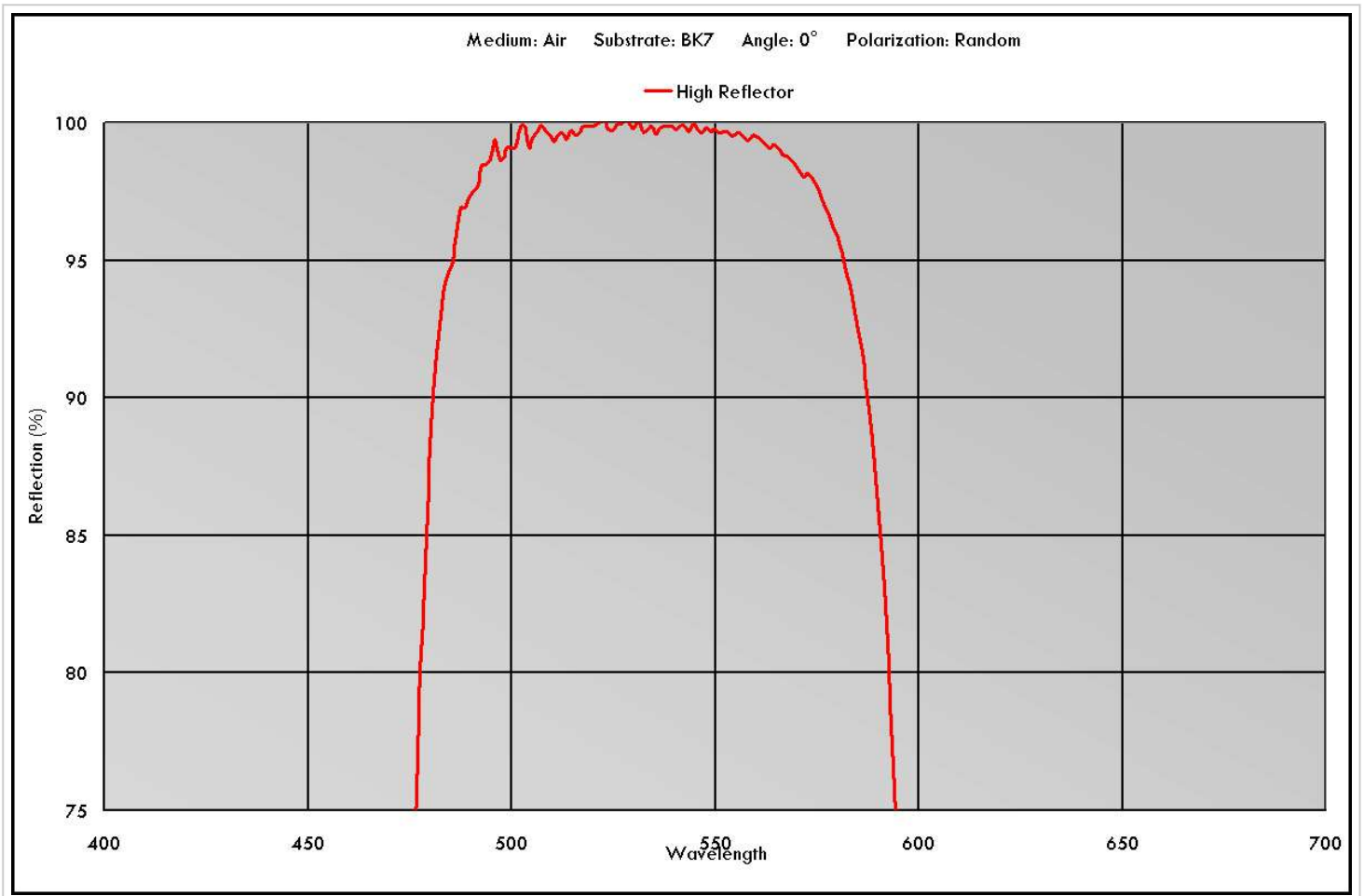
Protected silver offers a higher surface reflectivity than the enhanced aluminum coating. It provides an average reflection of approximately 97% in the visible wavelength range. This coating is a hybrid design optimized to provide increased environmental stability and maximum shelf life.



[Larger graph view](#)

Dielectric High Reflectors

High reflectors, sometimes referred to as laser mirrors, are used when a very high amount of light is needed to be reflected. They typically reflect between 99.0% to 99.995% with scatter as low as 50ppm. The angle of incidence and the center wavelength can be optimized from 0 to 70 degrees, and between 193nm and 3000nm. This type of coating does not usually provide a wide range of performance. Our most commonly produced designs are at 248nm and 308nm, at 0 and 45 degrees incident angles, along with all other major laser lines.



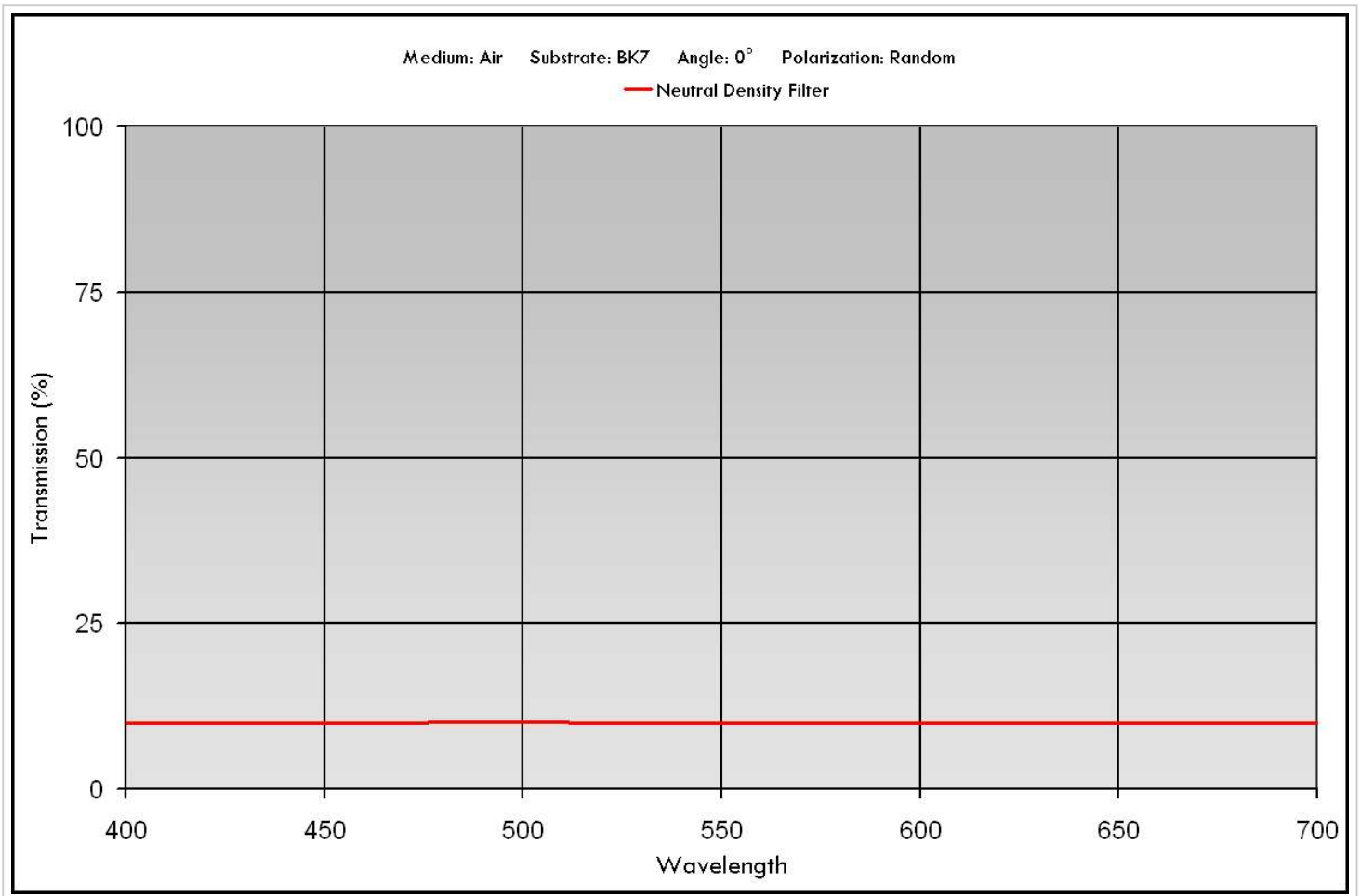
Larger graph view

Filter Coatings



Neutral Density

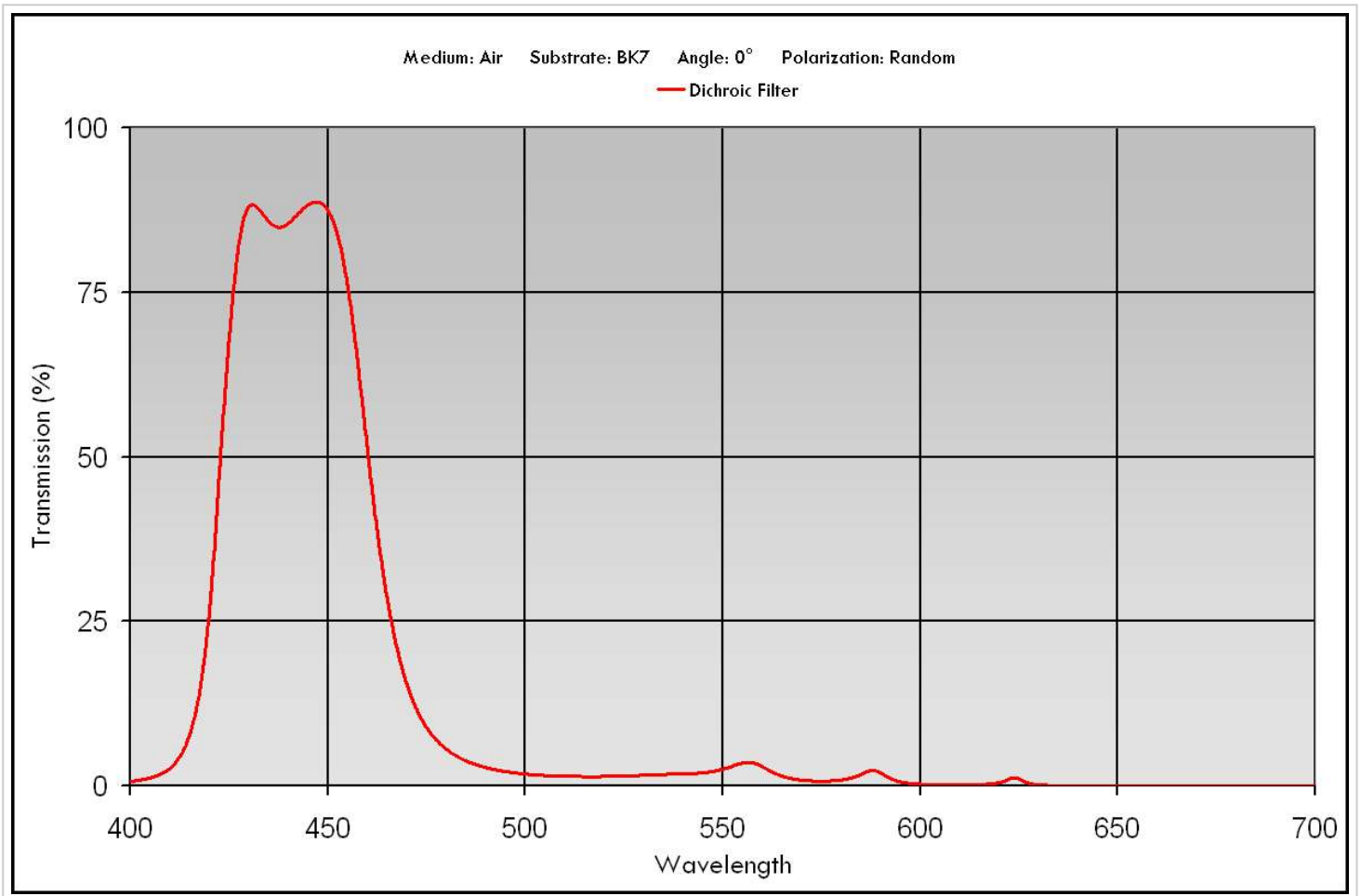
These metallic coatings provide a constant amount of transmitted energy to pass through the optic or window. Our neutral density filters are spectrally neutral from about 400nm to 1200nm. On quartz substrates, we produce a variety of standard neutral density films with optical densities (OD) including, 0.1, 0.3, 0.5, 1.0, 2.0, and 3.0. This coating can be custom designed to fit most transmission requirements. Due to the absorptive properties of the metallic materials used, we do not recommend this type of coating to be used with high power lasers.



Larger graph view

Dichroic

Also known as color filters, these are custom designed to customer specifications. Usually coated with dielectric materials for maximum efficiency.



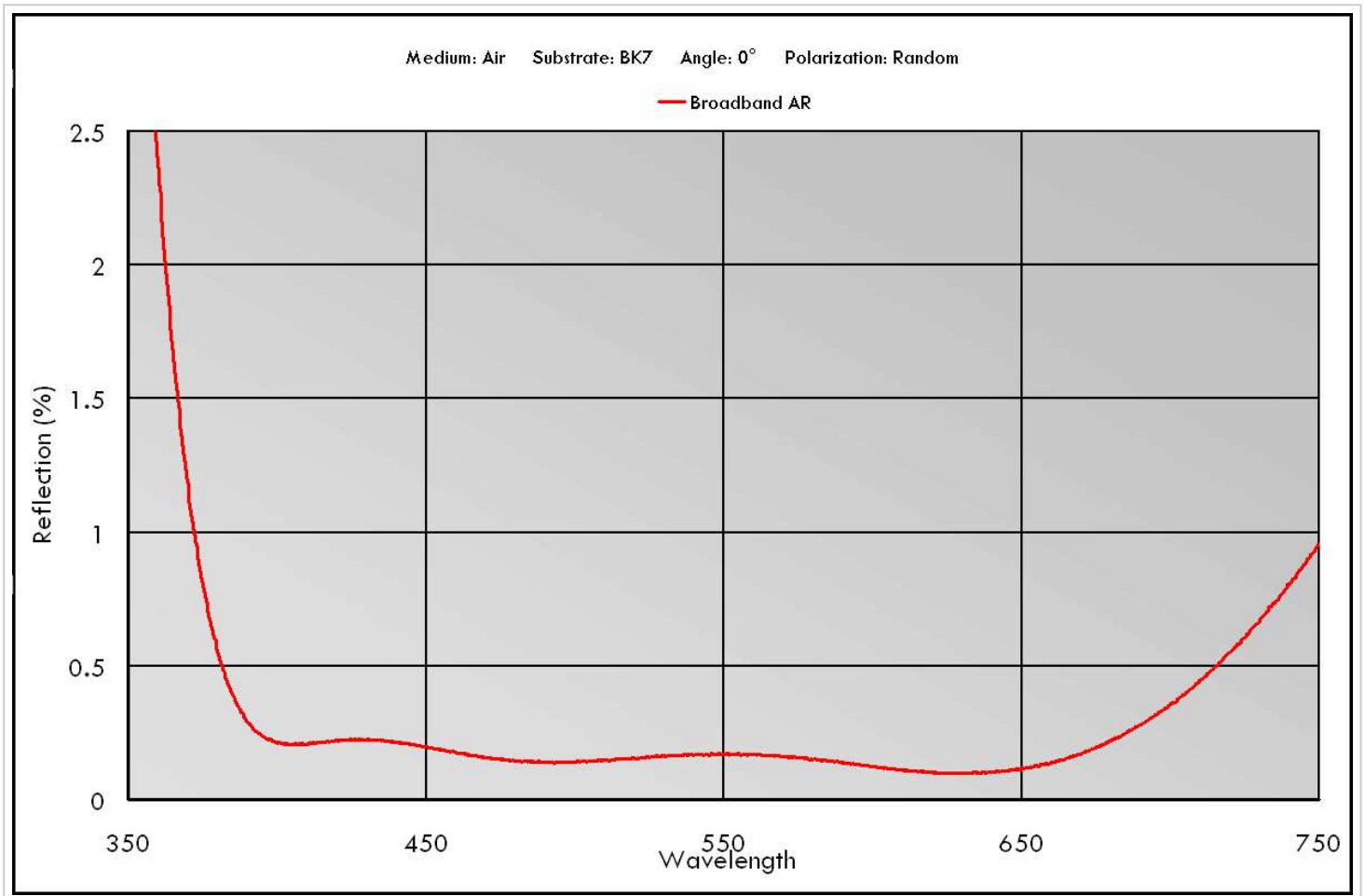
Larger graph view

Anti-Reflection Coatings



Broadband

This coating provides a glare free transmission by reducing the single surface reflection of the lens or window. The design offers a broad range of low reflectivity in the visible light spectrum. It performs from 400nm to 700nm, at 0 degrees angle of incidence. The design can be optimized for glass indices ranging from around 1.47 to 1.80, and wavelength ranges from 250nm to 3000nm. This coating type offers a maximum single surface reflection of <math><0.5\%</math> and an average reflection of approximately 0.25%.



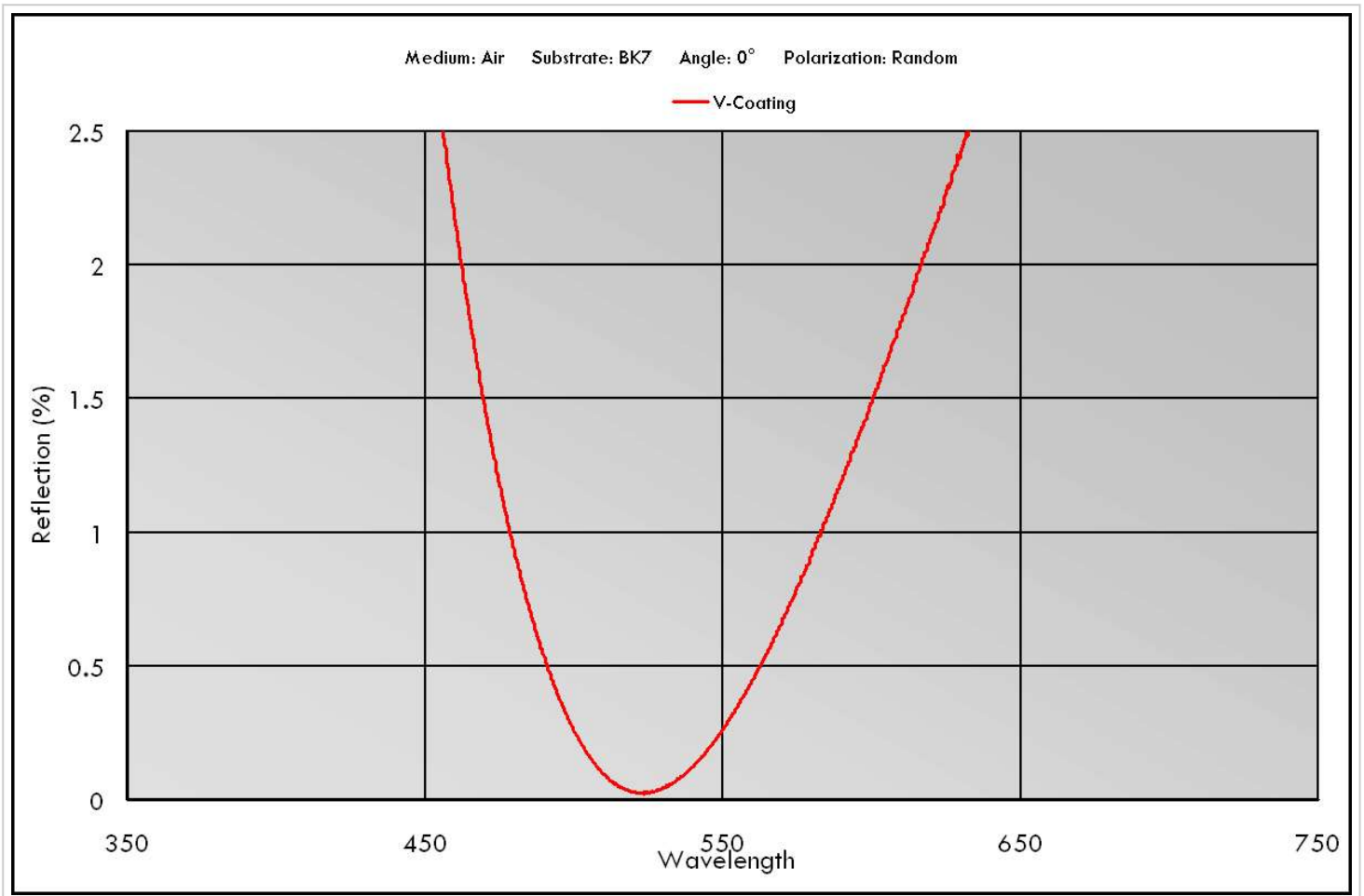
[Larger graph view](#)

V-Coat

The V-coat series offers the best single wavelength performance of any anti-reflection coating. Its design is relatively narrow, which limits the coatings effectiveness if a broader wavelength range or a wide angle of incidence is required. The coating can be applied and optimized for the same index range as the broadband anti-reflection coating. It will provide $< 0.25\%$ reflection at the center wavelength.

Super V-Coat

These ion beam sputtered coatings have extremely low scatter qualities and can provide as low as 10^{-3} to 10^{-4} reflection at the center wavelength. They are also applied at ambient temperature which allows more options with regard to tooling and other special requirements.



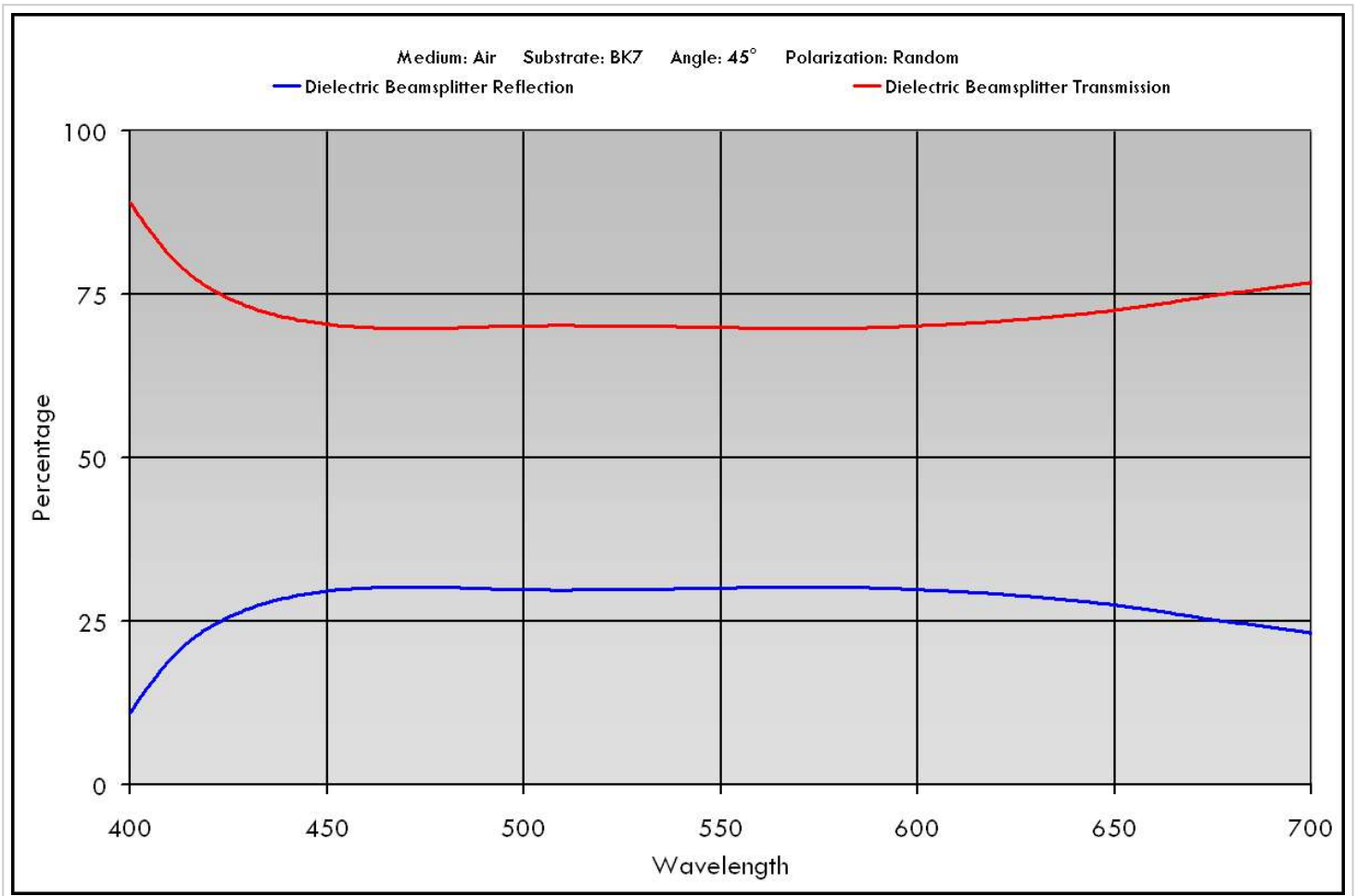
Larger graph view

Beamsplitters



Dielectric

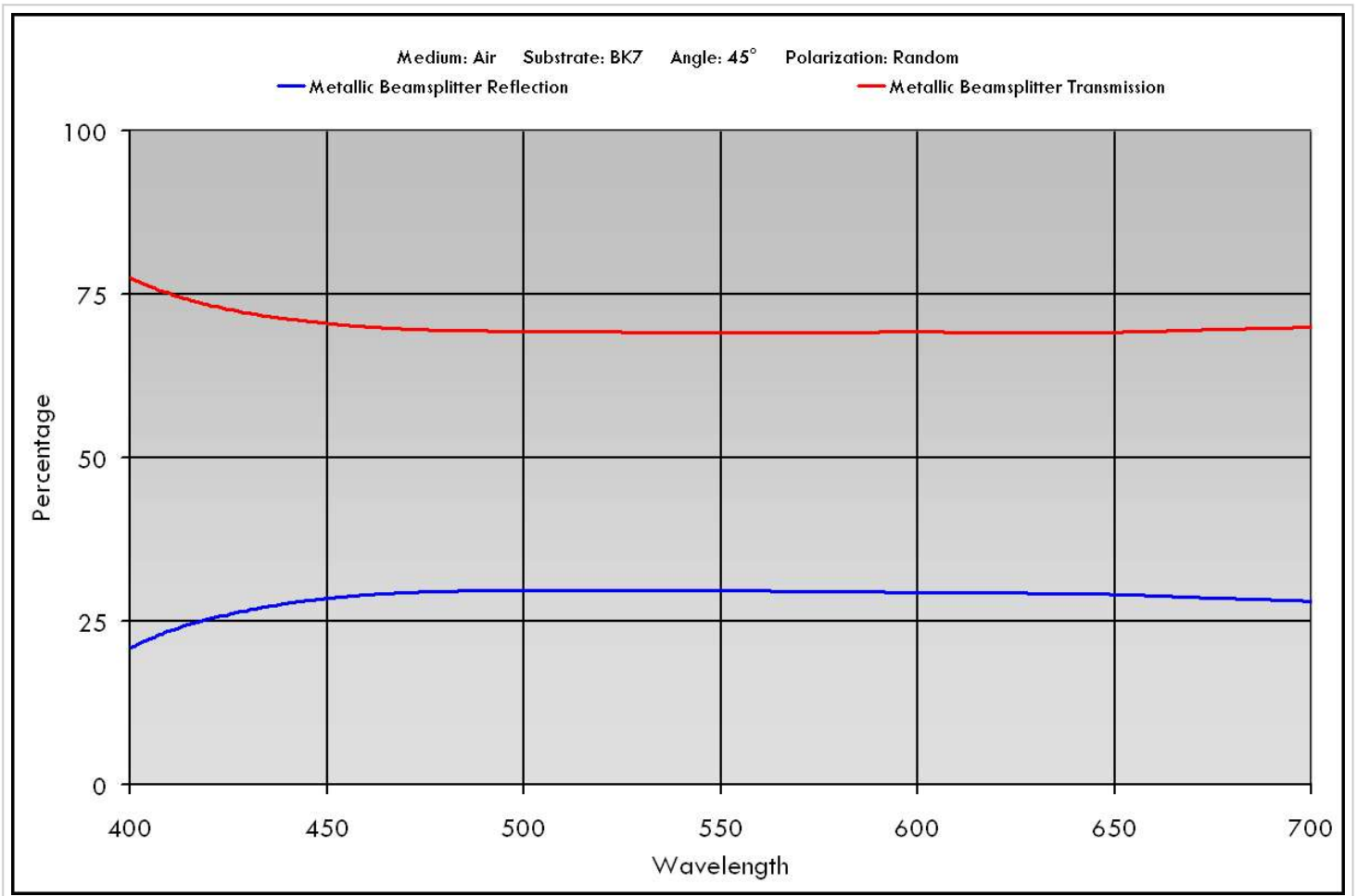
Can be designed for a small to large wavelength range. This coating also offers the added advantages of minimal absorption, much higher resistance to abrasion. These coatings can be designed to be more accurate and to perform over a wider spectrum.



[Larger graph view](#)

Metallic

This coating offers a good performance over a moderate spectral region. When using metallic beamsplitters we do not recommend using high power lasers due to the absorption in the metallic film.



[Larger graph view](#)

Guernsey Coating Laboratories

1788 Goodyear Ave.
Ventura CA 93003

Monday - Thursday: 8:00 am - 5:00 pm

Friday: 9:00 am - 2:00 pm

CONTACT US ([contact.html](#))

Phone: (805) 642-1508

Toll Free: (800) 642-1508

Fax: (805) 642-1554

sales@gclinc.com



(<http://facebook.com/gclinc>)



([http://www.linkedin.com/company/guernsey-coating-](http://www.linkedin.com/company/guernsey-coating-laboratories-inc-?goback=%2Egde_2804066_member_95043546&trk=top_nav_home)

[laboratories-inc-?goback=%2Egde_2804066_member_95043546&trk=top_nav_home](http://www.linkedin.com/company/guernsey-coating-laboratories-inc-?goback=%2Egde_2804066_member_95043546&trk=top_nav_home))