

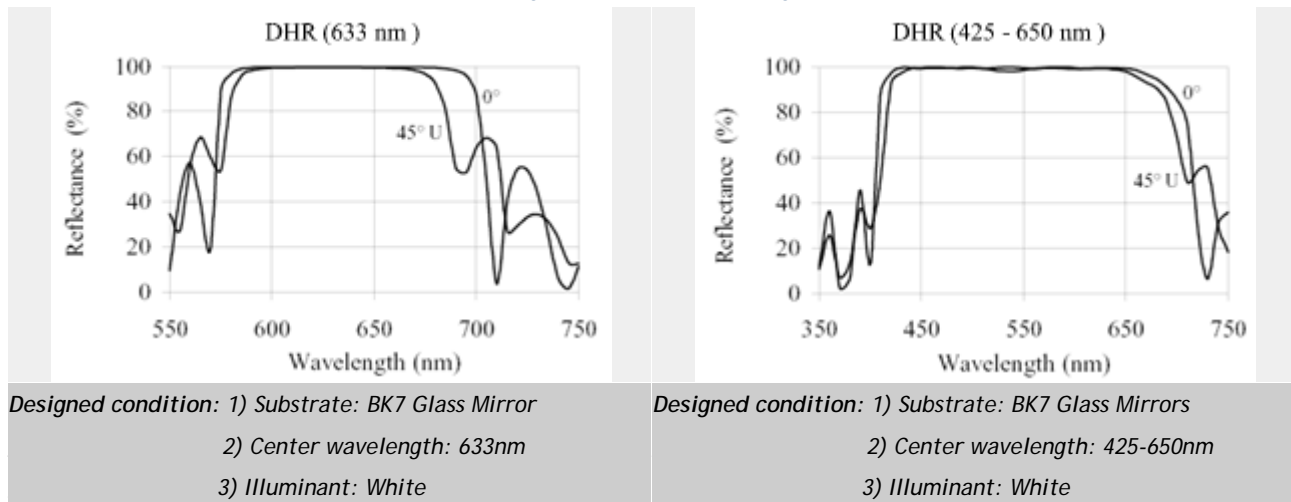
Direlectric High Reflective Coatings(Part No: DHR)

Dielectric coatings combine with high reflection values with outstanding durability characteristics. These coatings can exhibit significantly higher reflectance values than metallic films over specific wavelength intervals. Dielectric coatings can be optimized for a particular angle of incidence and reflection bandwidth in the UV, visible or infrared regions. Broader reflectance region or high reflectance values at different bandwidths can be obtained by combining two or more dielectric stacks centered at shifted design wavelengths. All-dielectric coatings are extensively used in laser applications. Our laser mirrors exhibit extremely low absorption and scatter, and are specifically designed to withstand high power laser energy levels.

For your application, please refer to its following characteristics:

- A mirror utilizing the interference from alternating high and low refractive index layers.
- Reflectance close to 100% can be achieved.
- Mechanical hardness of coating surface is high and durable to abrasive cleaning.
- Reflecting band is limited when compared to metals and is highly sensitive the angle of incidence.
- The reflectivity and the bandwidth are dependent upon the incident state of polarization for angles greater than 0deg.

■ Reflectance Simulation of Direlectric High Reflective Coatings



■ Direlectric High Reflective Coatings on Mirror.

| Wavelength Range (nm) | Incident Angles | Reflectivity (%) | Damage Threshold | Recommended Substrate | Coating Index |
|-----------------------|-----------------|------------------|------------------------------|-----------------------|---------------|
| 488 | 0°, 45° | 99.5 | 1 J/cm ² in 10 ns | BK7, Fused Silica | UQT-DHR001 |
| 532 | 0°, 45° | 99.5 | 3 J/cm ² in 10 ns | BK7, Fused Silica | UQT-DHR002 |
| 633 | 0°, 45° | 99.5 | 3 J/cm ² in 10 ns | BK7, Fused Silica | UQT-DHR003 |
| 780 | 0°, 45° | 99.5 | 3 J/cm ² in 10 ns | BK7, Fused Silica | UQT-DHR004 |
| 830 | 0°, 45° | 99.5 | 3 J/cm ² in 10 ns | BK7, Fused Silica | UQT-DHR005 |
| 852 | 0°, 45° | 99.5 | 3 J/cm ² in 10 ns | BK7, Fused Silica | UQT-DHR006 |
| 1064 | 0°, 45° | 99.5 | 3 J/cm ² in 10 ns | BK7, Fused Silica | UQT-DHR007 |

| | | | | | |
|----------|--------|------|------------------------------|------------------|------------|
| 1320 | 0°,45° | 99.5 | 1 J/cm ² in 10 ns | BK7,Fused Silica | UQT-DHR008 |
| 1550 | 0°,45° | 99.5 | 1 J/cm ² in 10 ns | BK7,Fused Silica | UQT-DHR009 |
| 2000 | 0°,45° | 99 | 1 J/cm ² in 10 ns | BK7,Fused Silica | UQT-DHR010 |
| 450-600 | 0°,45° | 98.5 | 1 J/cm ² in 10 ns | BK7,Fused Silica | UQT-DHR011 |
| 500-700 | 0°,45° | 98.5 | 1 J/cm ² in 10 ns | BK7,Fused Silica | UQT-DHR012 |
| 600-800 | 0°,45° | 98.5 | 1 J/cm ² in 10 ns | BK7,Fused Silica | UQT-DHR013 |
| 900-1100 | 0°,45° | 98.5 | 1 J/cm ² in 10 ns | BK7,Fused Silica | UQT-DHR014 |

Please Contact [ultiQuest](#) for more information and technical supports.

NOTES!

- ➔ The reflectance in the specifications list is that of random polarization or (p-polarization reflectance + s-polarization reflectance)/2.
- ➔ The values of laser damage threshold are based on actual measurement and not a guaranteed specification.