

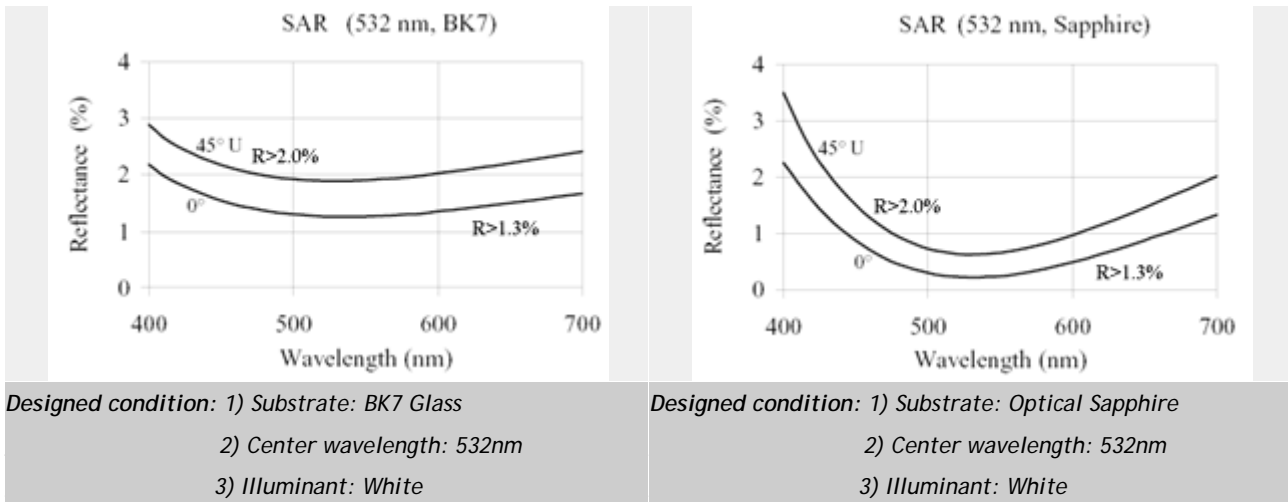
Single Layer MgF2 Anti-Reflective Coatings(Part No: SAR)

Single Layer Magnesium Fluoride (MgF2) is the most common anti-reflection coating. It is a hard, durable coating that reduces surface reflectance of BK7 from approximately 4% to less than 1.3% at the specified center wavelength and normal incidence. Reflection losses for higher index materials such as sapphire are less than 0.5%. This coating is widely used in commercial optical products and other less demanding applications.

Its performance is not outstanding but it does represents a significant improvement over an uncoated surface. For your application, please refer to its following characteristics:

- Substrate coated with only a single layer of magnesium fluoride (MgF2).
- Remaining reflectance is larger than a multi-layer AR (about 1.5% per surface for BK7 substrate).
- Has less sensitivity to incident angle and the usable wavelength range is broad.
- Sufficiently reduces the reflectivity when applied on the glass substrate which have high refractive index (about 1.8-1.9).

■ Reflectance Simulation of Single Layer Anti-reflection Coatings



■ Single-Layer MgF2 Antireflection Coating Normal Incidence

Wavelength Range (nm)	Maximum Reflectance on BK7 (%)	Maximum Reflectance on Fused Silica (%)	Coating Index
400-700	2.0	2.25	UQT-SAR001
520-820	2.0	2.25	UQT-SAR002

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

NOTES!

- ➔ Be sure to wear laser safety goggles when checking optical path and adjusting optical axis.