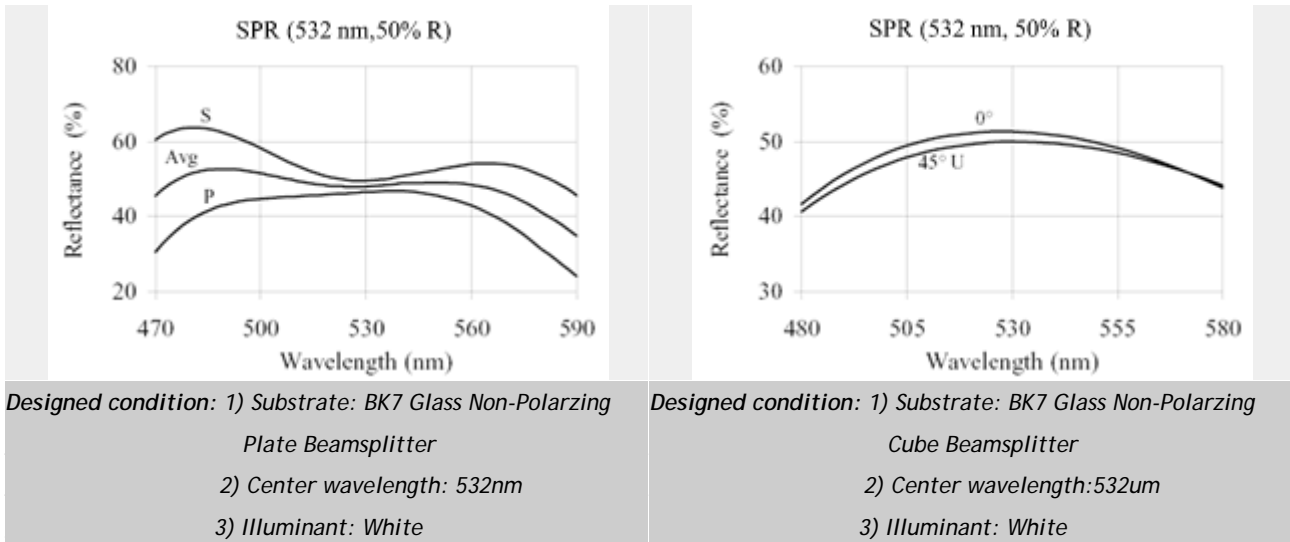


Single Wavelength Partial Reflective Coatings(Part No: SPA)

When a narrow wavelength radiation is incident on this coating, part of the radiation is reflected and part is transmitted. Such coatings always show a high reflectivity for S-polarization radiation and high transmission for P-polarization radiation. The main application of this coating is to form a beamsplitter with 45 degree angle of incident. However, please refer to their following characteristics:

- Desired reflectance (or transmittance) could arbitrary be achieved by controlling number and thickness of layers.
- Internal absorption loss of the thin film is less than 0.1%.
- Mechanical hardness of surface is large and therefore durable to cleaning.
- By appropriately choosing refractive index and thickness of each layer, special coatings such as non-polarizing plates are possible.
- Possible to use with high power laser (except for cemented cube type).

■ Reflectance Simulation of Single Wavelength Partial Reflection Coatings



■ Single Wavelength Partial Reflection Coatings on Non Polarizing Plates.

Wavelength Range (nm)	Incident Angles	Transmittance (Tp, Ts)	Tp-Ts	Recommended Substrate	Coating Index
488	45°	50 ± 5%	5%	BK7, Fused Silica	UQT-SPARP001
532	45°	50 ± 5%	5%	BK7, Fused Silica	UQT-SPARP002
633	45°	50 ± 5%	5%	BK7, Fused Silica	UQT-SPARP003
670	45°	50 ± 5%	5%	BK7, Fused Silica	UQT-SPARP004
780	45°	50 ± 5%	5%	BK7, Fused Silica	UQT-SPARP005
1064	45°	50 ± 5%	5%	BK7, Fused Silica	UQT-SPARP006
1300	45°	50 ± 5%	5%	BK7, Fused Silica	UQT-SPARP007
1550	45°	50 ± 5%	5%	BK7, Fused Silica	UQT-SPARP008

■ Single Wavelength Partial Reflection Coatings on Non Polarizing Cubes.

Wavelength Range (nm)	Incident Angles	Transmittance (Tp, Ts)	Tp-Ts	Recommended Substrate	Coating Index
488	0°	50 ± 5%	5%	BK7, Fused Silica	UQT-SPARC001
532	0°	50 ± 5%	5%	BK7, Fused Silica	UQT-SPARC002
633	0°	50 ± 5%	5%	BK7, Fused Silica	UQT-SPARC003
670	0°	50 ± 5%	5%	BK7, Fused Silica	UQT-SPARC004
780	0°	50 ± 5%	5%	BK7, Fused Silica	UQT-SPARC005
1064	0°	50 ± 5%	5%	BK7, Fused Silica	UQT-SPARC006
1300	0°	50 ± 5%	5%	BK7, Fused Silica	UQT-SPARC007
1550	0°	50 ± 5%	5%	BK7, Fused Silica	UQT-SPARC008

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

NOTES!

- ➔ Tp stands for the transmittance of p-polarized light and Ts stands for the transmittance of s-polarized light.
- ➔ The values of laser damage threshold are based on actual measurement and not a guaranteed specification.