

High Reflection Coatings



We offer narrowband and broadband dielectric high reflecting coatings as well as a range of metal coatings. **Laser Line HR Coatings** are offered for all major laser wavelengths in the range of 193 to 2100nm. **Broadband HR Coatings** are offered for a selection of bandwidths. They provide a very high degree of spectrally neutral reflection and represent the ultimate in optical mirror coatings. Most of the coatings listed are for use at 45 degrees angle of incidence, but we do offer a selection of **Broadband, Normal Incidence HR Coatings**. Other normal incidence coatings can be provided on special request.

Metal coatings, such as **Protected Aluminum**, **Protected Silver** or **Protected Gold** provide reflectance over an extremely broad spectral range. These coatings are protected by a thin layer of dielectric material in order to make them durable. It is also possible to enhance the performance of metal coatings by adding several dielectric layers over the metal coating.

Specifications & Tolerances

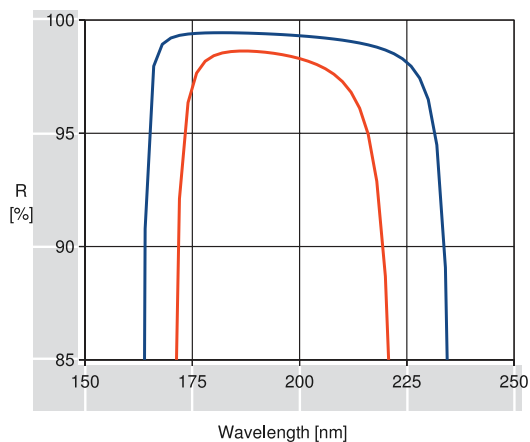
Narrowband Laser HR: ($\lambda=193\text{nm}$) $R_{av} > 95\%$ for 45° incidence at designated wavelength

Narrowband Laser HR: ($\lambda > 193$ and $< 300\text{nm}$) $R_{av} > 95\%$ for 45° incidence at designated wavelength

Broadband HR:	(45° AOI)	$R_{av} > 99.0\%$ for 45° incidence over designated bandwidth
Protected Aluminum:		$R_{av} > 88.0\%$ from 400 to 2000nm
Enhanced Aluminum:		$R_{av} > 94.0\%$ from 400 to 700nm
Protected Silver:		$R_{av} > 96\%$ from 400 to 2000nm
Enhanced Silver:		$R_{av} > 97.5\%$ from 400 to 700nm
Protected Gold:		$R_{av} > 96\%$ from 650nm to $> 20\mu\text{m}$

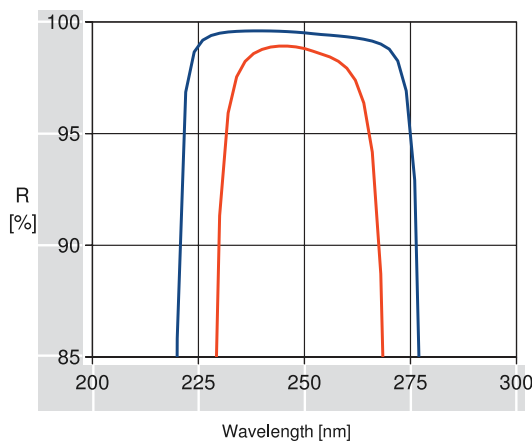
Durability and Laser damage threshold depend on the substrate so please see the product sections of this catalog for these specifications.

ORDERING
&
TECHNICAL SUPPORT
(949) 851-5881
FAX (949) 851-5058
E-MAIL
sales@optosigma.com
WEB
www.optosigma.com



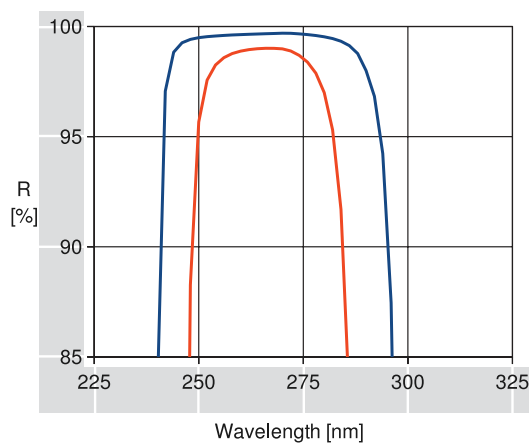
**NARROWBAND
H.R. COATING**
R03: 193nm

S-POL, 45° —
P-POL, 45° —



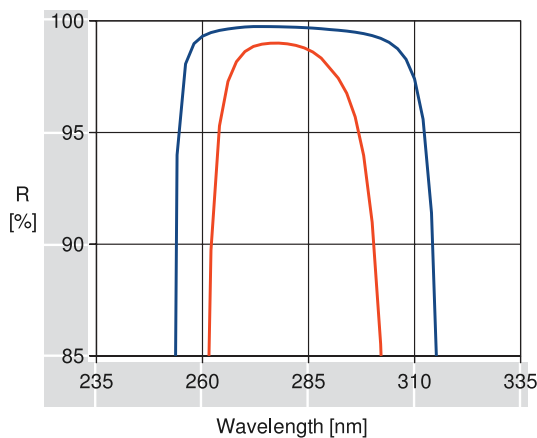
**NARROWBAND
H.R. COATING**
R04: 248nm

S-POL, 45° —
P-POL, 45° —



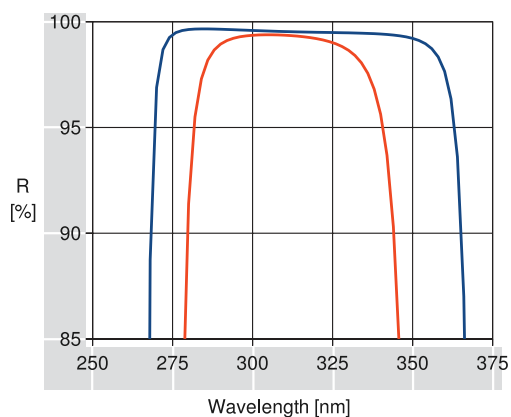
**NARROWBAND
H.R. COATING**
R05: 266nm

S-POL, 45° —
P-POL, 45° —



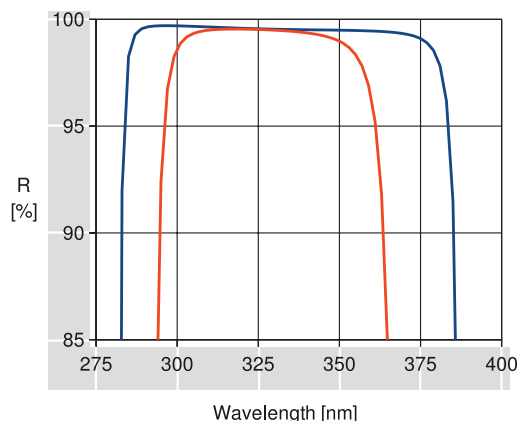
**NARROWBAND
H.R. COATING**
R06: 281nm

S-POL, 45° —
P-POL, 45° —



**NARROWBAND
H.R. COATING**
R07: 308nm

S-POL, 45° —
P-POL, 45° —



**NARROWBAND
H.R. COATING**
R08: 325nm

S-POL, 45° —
P-POL, 45° —

ORDERING
&
TECHNICAL SUPPORT

(949) 851-5881

FAX (949) 851-5058

E-MAIL

sales@optosigma.com

WEB

www.optosigma.com

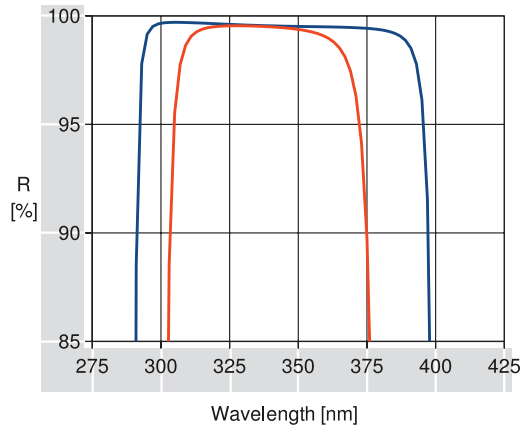
THIN FILM COATINGS

Coatings

Anti-Reflection Coatings

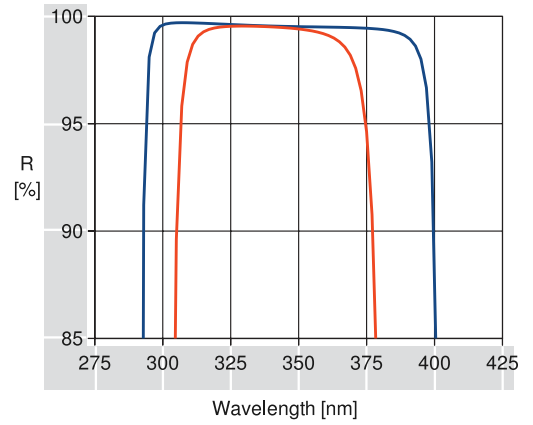
High Reflection Coatings

Custom Coatings



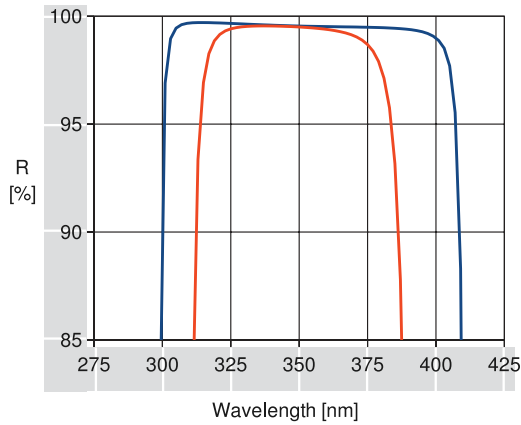
**NARROWBAND
H.R. COATING
R09: 335nm**

S-POL, 45° —
P-POL, 45° —



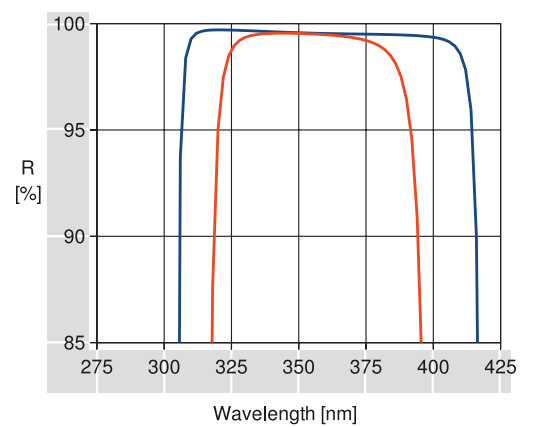
**NARROWBAND
H.R. COATING
R11: 337nm**

S-POL, 45° —
P-POL, 45° —



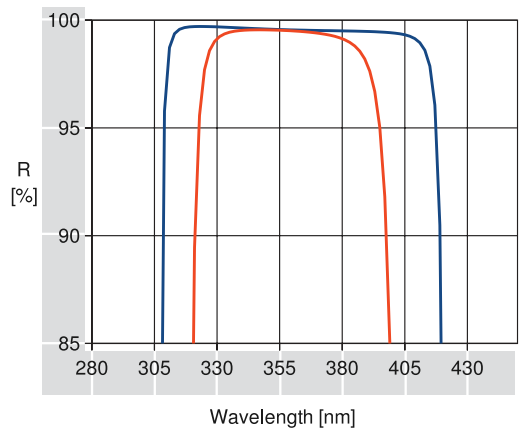
**NARROWBAND
H.R. COATING
R12: 345nm**

S-POL, 45° —
P-POL, 45° —



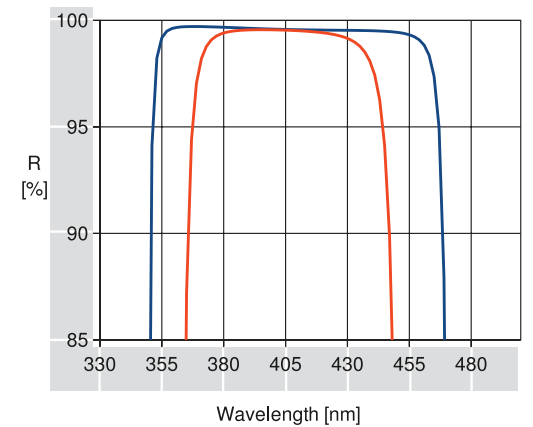
**NARROWBAND
H.R. COATING
R13: 352nm**

S-POL, 45° —
P-POL, 45° —



**NARROWBAND
H.R. COATING
R14: 355nm**

S-POL, 45° —
P-POL, 45° —



**NARROWBAND
H.R. COATING
R16: 405nm**

S-POL, 45° —
P-POL, 45° —

ORDERING
&
TECHNICAL SUPPORT

(949) 851-5881

FAX (949) 851-5058

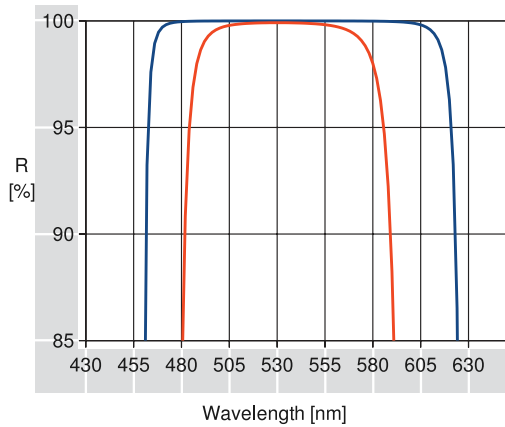
E-MAIL

sales@optosigma.com

WEB

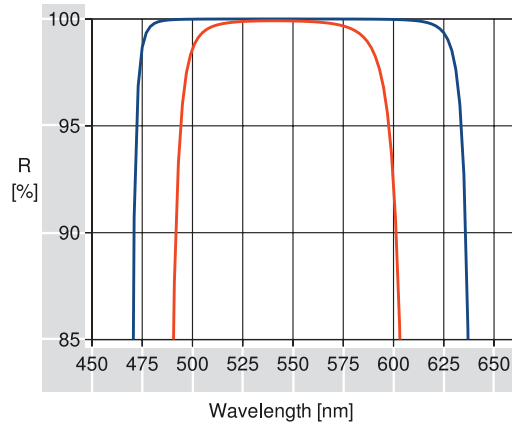
www.optosigma.com





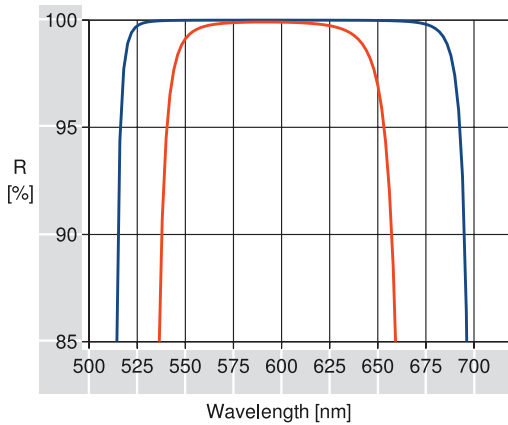
**NARROWBAND
H.R. COATING**
R26: 532nm

S-POL, 45° —
P-POL, 45° —



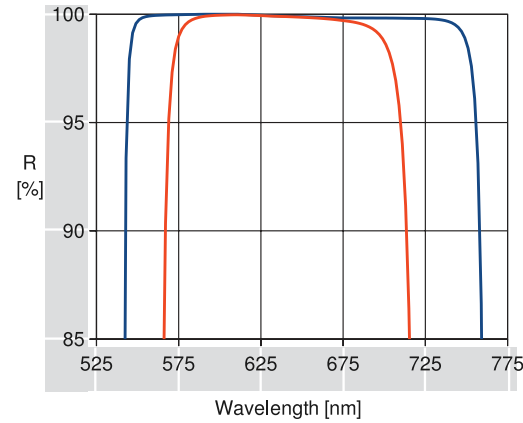
**NARROWBAND
H.R. COATING**
R28: 543nm

S-POL, 45° —
P-POL, 45° —



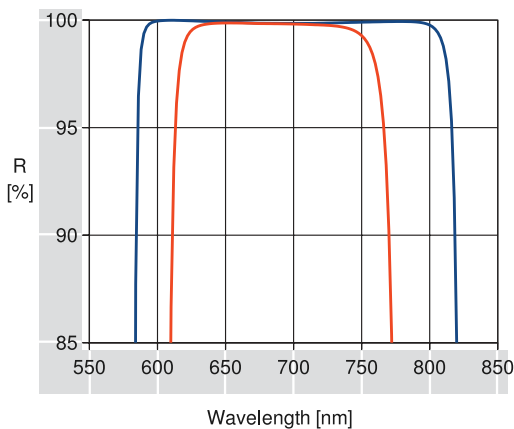
**NARROWBAND
H.R. COATING**
R30: 594nm

S-POL, 45° —
P-POL, 45° —



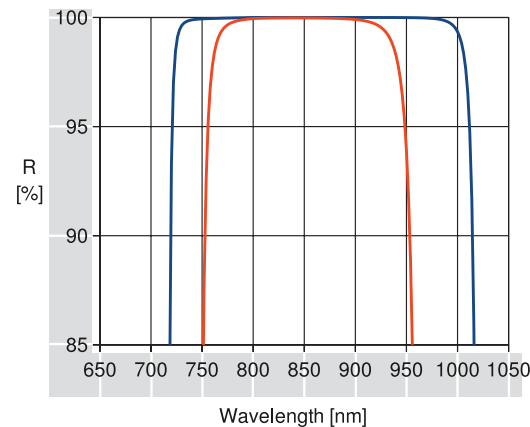
**NARROWBAND
H.R. COATING**
R33: 632.8nm

S-POL, 45° —
P-POL, 45° —



**NARROWBAND
H.R. COATING**
R36: 670-694nm

S-POL, 45° —
P-POL, 45° —



**NARROWBAND
H.R. COATING**
R42: 780-905nm

S-POL, 45° —
P-POL, 45° —

ORDERING
&
TECHNICAL SUPPORT

(949) 851-5881

FAX (949) 851-5058

E-MAIL

sales@optosigma.com

WEB

www.optosigma.com

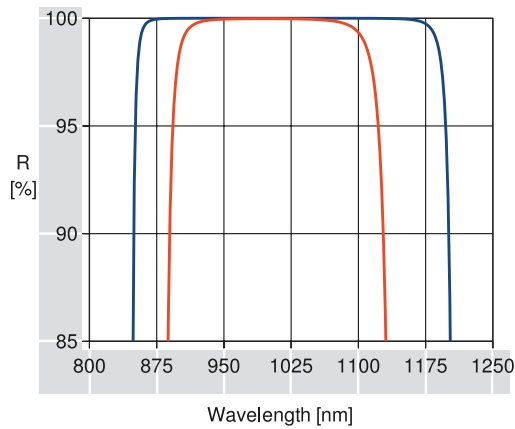
THIN FILM COATINGS

Coatings

Anti-Reflection Coatings

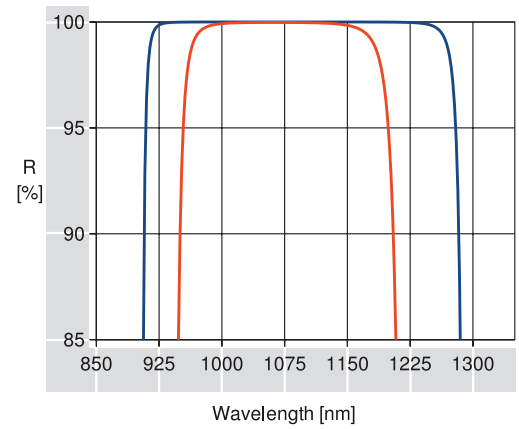
High Reflection Coatings

Custom Coatings



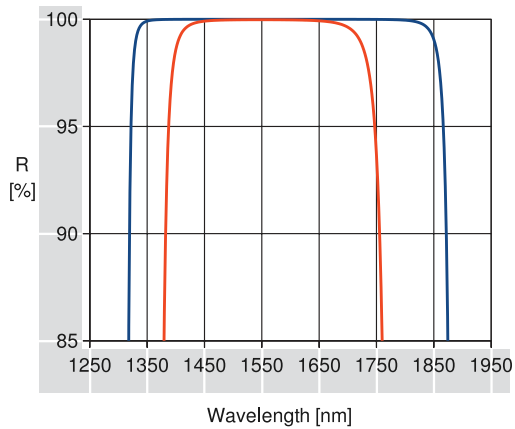
**NARROWBAND
H.R. COATING**
R45: 980-1012nm

S-POL, 45° —
P-POL, 45° —



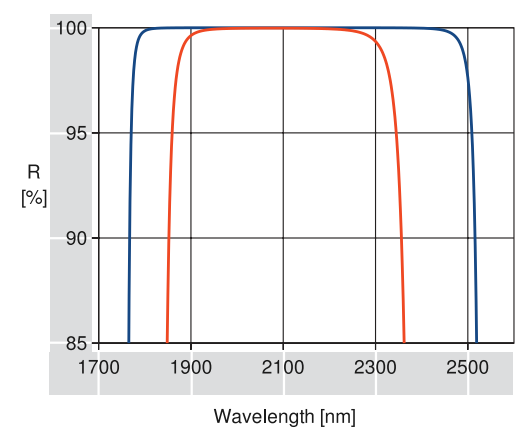
**NARROWBAND
H.R. COATING**
R46: 1064nm

S-POL, 45° —
P-POL, 45° —



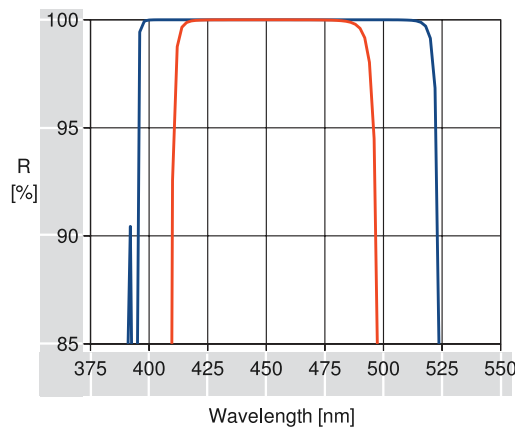
**NARROWBAND
H.R. COATING**
R48: 1550nm

S-POL, 45° —
P-POL, 45° —



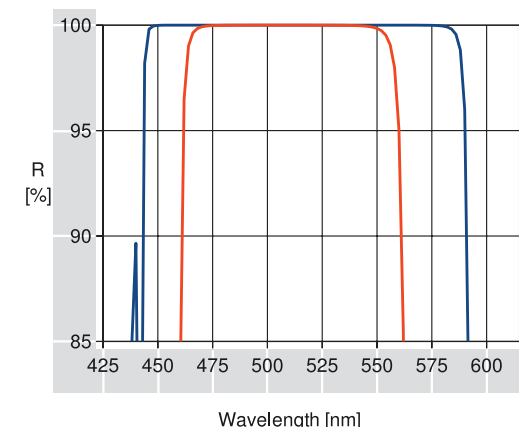
**NARROWBAND
H.R. COATING**
R50: 2060-2100nm

S-POL, 45° —
P-POL, 45° —



**BROADBAND
H.R. COATING**
R52: 420-480nm

S-POL, 45° —
P-POL, 45° —



**BROADBAND
H.R. COATING**
R53: 480-540nm

S-POL, 45° —
P-POL, 45° —

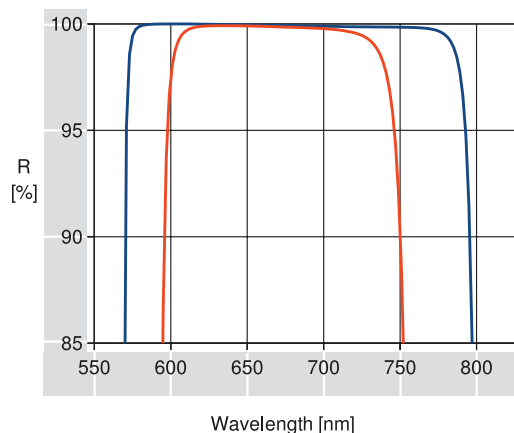
ORDERING
&
TECHNICAL SUPPORT

(949) 851-5881

FAX (949) 851-5058

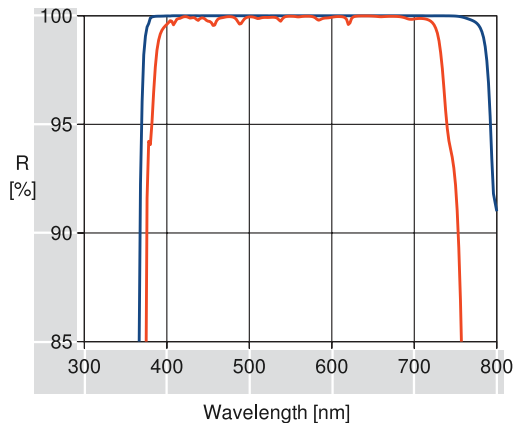
E-MAIL
sales@optosigma.com

WEB
www.optosigma.com



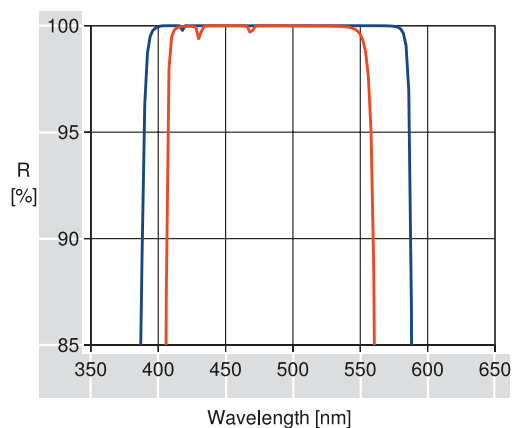
**BROADBAND
H.R. COATING**
R54: 630-700nm

S-POL, 45° —
P-POL, 45° —



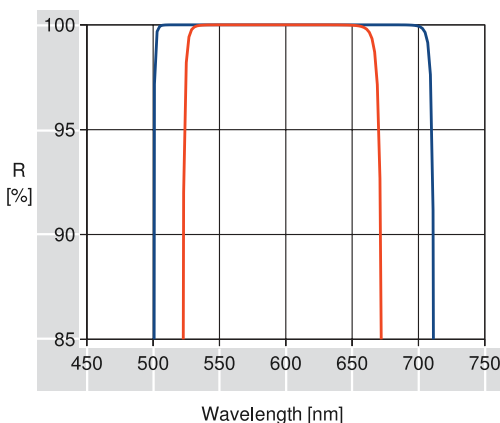
**BROADBAND
H.R. COATING**
R55: 425-675nm

S-POL, 45° —
P-POL, 45° —



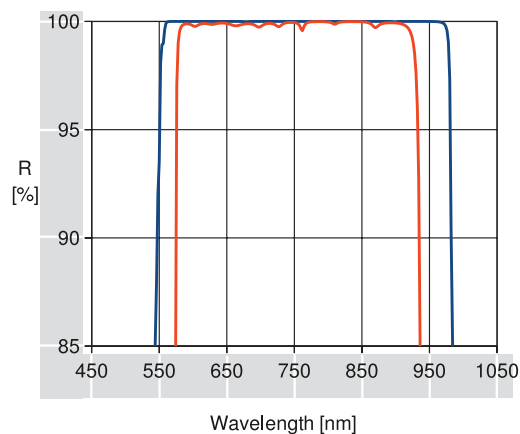
**BROADBAND
H.R. COATING**
R56: 420-540nm

S-POL, 45° —
P-POL, 45° —



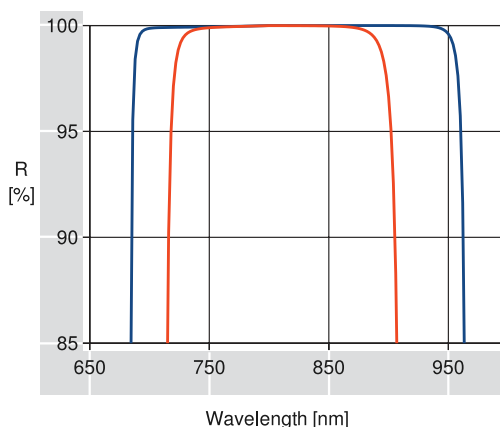
**BROADBAND
H.R. COATING**
R57: 540-650nm

S-POL, 45° —
P-POL, 45° —



**BROADBAND
H.R. COATING**
R58: 600-900nm

S-POL, 45° —
P-POL, 45° —



**BROADBAND
H.R. COATING**
R59: 770-830nm

S-POL, 45° —
P-POL, 45° —

ORDERING
&
TECHNICAL SUPPORT

(949) 851-5881

FAX (949) 851-5058

E-MAIL

sales@optosigma.com

WEB

www.optosigma.com

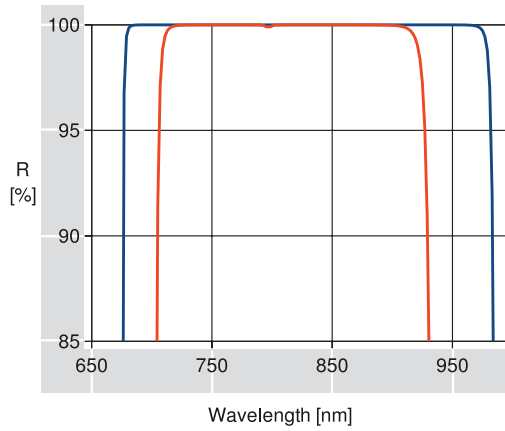
THIN FILM COATINGS

Coatings

Anti-Reflection Coatings

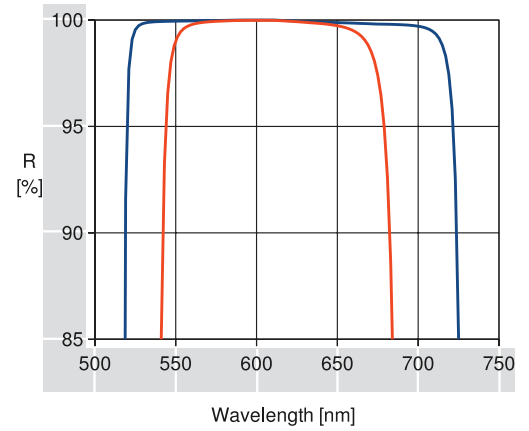
High Reflection Coatings

Custom Coatings



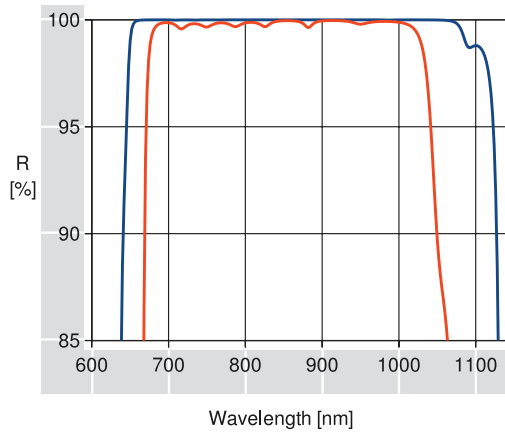
**BROADBAND
H.R. COATING**
R60: 730-900nm

S-POL, 45° —
P-POL, 45° —



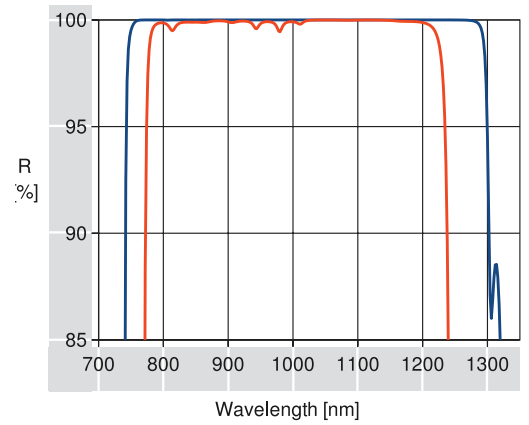
**BROADBAND
H.R. COATING**
R61: 570-640nm

S-POL, 45° —
P-POL, 45° —



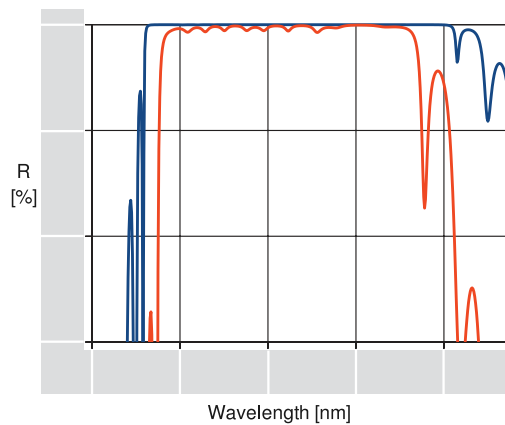
**BROADBAND
H.R. COATING**
R62: 700-1000nm

S-POL, 45° —
P-POL, 45° —



**BROADBAND
H.R. COATING**
R66: 800-1200nm

S-POL, 45° —
P-POL, 45° —



**BROADBAND
H.R. COATING**
R67: 1100-1600nm

S-POL, 45° —
P-POL, 45° —

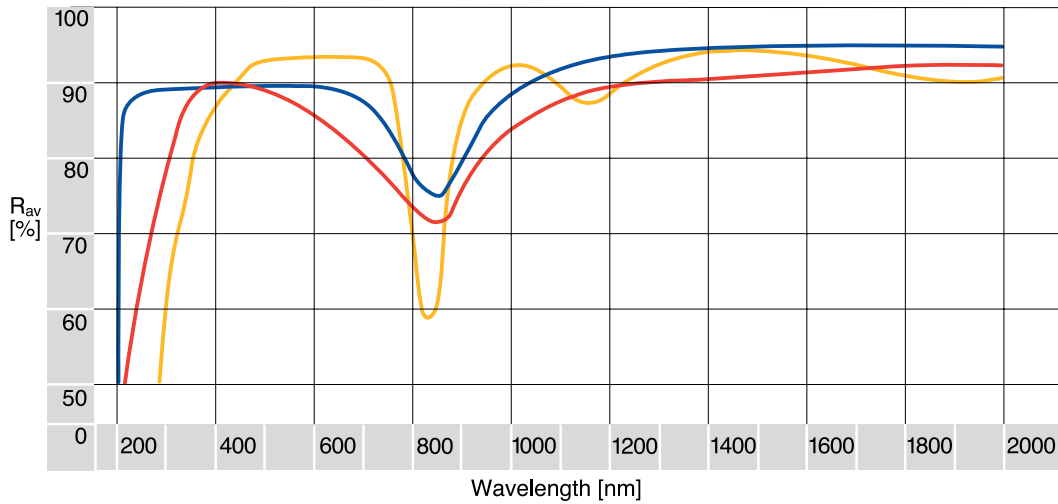
ORDERING
&
TECHNICAL SUPPORT

(949) 851-5881

FAX (949) 851-5058

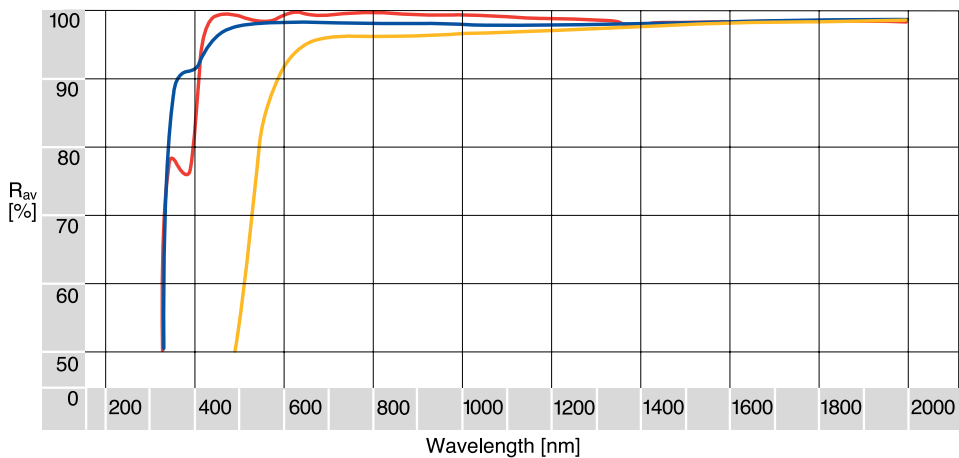
E-MAIL
sales@optosigma.com

WEB
www.optosigma.com



ALUMINUM COATING REFLECTIVITY
AOI: 45°

R89: PROTECTED ALUMINUM
R88: VISIBLE ENHANCED ALUMINUM
R87: UV ENHANCED ALUMINUM



SILVER/GOLD COATING REFLECTIVITY
AOI: 45°

R78: PROTECTED SILVER
R77: ENHANCED SILVER
R79: PROTECTED GOLD

ORDERING
&
TECHNICAL SUPPORT
(949) 851-5881
FAX (949) 851-5058
E-MAIL
sales@optosigma.com
WEB
www.optosigma.com

High Reflection Coatings

Coatings

Anti-Reflection Coatings

High Reflection Coatings

Custom Coatings

Type	Wavelength Range (nm)	Reflectivity per Surface (%)	Minimum Price per Side 1-9 Pieces	Price per Side 10 Pieces	Coating suffix
Laser Line HR	193	>95.0			R03
Laser Line HR	248	>99.0			R04
Laser Line HR	266	>99.0			R05
Laser Line HR	281	>99.0			R06
Laser Line HR	308	>99.5			R07
Laser Line HR	325	>99.5			R08
Laser Line HR	335	>99.5			R09
Laser Line HR	337	>99.5			R11
Laser Line HR	345	>99.5			R12
Laser Line HR	352	>99.5			R13
Laser Line HR	355	>99.5			R14
Laser Line HR	405	>99.5			R16
Laser Line HR	532	>99.5			R26
Laser Line HR	543	>99.5			R28
Laser Line HR	594	>99.5			R30
Laser Line HR	632.8	>99.5			R33
Laser Line HR	670-694	>99.5			R36
Laser Line HR	780-905	>99.5			R42
Laser Line HR	980-1012	>99.5			R45
Laser Line HR	1064	>99.5			R46
Laser Line HR	1550	>99.5			R48
Laser Line HR	2060-2100	>99.5			R50
Broadband HR	420-480	>99.5 avg			R52
Broadband HR	480-540	>99.5 avg			R53
Broadband HR	630-700	>99.5 avg			R54
Broadband HR	425-675	>99.0 avg			R55
Broadband HR	420-540	>99.0 avg			R56
Broadband HR	540-650	>99.0 avg			R57
Broadband HR	600-900	>99.0 avg			R58
Broadband HR	770-830	>99.5 avg			R59
Broadband HR	730-900	>99.0 avg			R60
Broadband HR	570-640	>99.5 avg			R61
Broadband HR	700-1000	>99.0 avg			R62
Broadband HR	800-1200	>99.0 avg			R66
Broadband HR	1100-1600	>99.0 avg			R67
Enhanced Silver	400-2000	>97.5 avg			R77
Protected Silver	400-2000	>96.0 avg			R78
Protected Gold	650-IR	>96.0 avg			R79
UV Enhanced Aluminum	250-400	>85.0 avg			R87
Enhanced Aluminum	400-700	>94.0 avg			R88
Protected Aluminum	400-2000	>88.0 avg			R89

ORDERING

&

TECHNICAL SUPPORT

(949) 851-5881

FAX (949) 851-5058

E-MAIL

sales@optosigma.com

WEB

www.optosigma.com

