

ANTI-REFLECTION COATINGS

These multilayer anti-reflection coatings are designed for reducing the reflectivity of a component to near-zero for one very specific wavelength. Therefore, valuable laser energy is efficiently transferred through complex

optical systems rather than being lost to glare and scatter. Our AR coatings are intended for use at normal incidence, and when used in this way will achieve maximum efficiency transmission.

LASER LINE ANTI-REFLECTION COATINGS

Standard Laser Line Anti-Reflection Coatings

| Wavelength, nm | Reflection per surface (AOI=0°) | Laser Damage Threshold *, J/cm ² | Coating suffix | Price, EUR | |
|----------------|---------------------------------|---------------------------------------------|----------------|------------|-------|
| | | | | Ø25.4 | Ø50.8 |
| 266 | R<0.4% | 2 | AR266 | 54 | 67 |
| 333 – 353 | R<0.5% | 3 | AR343 | 35 | 60 |
| 355 | R<0.25% | 4 | AR355 | 35 | 60 |
| 380 – 420 | R<0.5% | 3 | AR400 | 35 | 60 |
| 500 – 530 | R<0.3% | 5 | AR515 | 35 | 60 |
| 532 | R<0.2% | 5 | AR532 | 35 | 60 |
| 760 – 840 | R<0.4% | 8 | AR800 | 42 | 67 |
| 1000 – 1060 | R<0.3% | 10 | AR1030 | 35 | 60 |
| 1064 | R<0.2% | 20 | AR1064 | 35 | 60 |

* Measured at design wavelength, 10 ns, 50 Hz.

IBS Laser Line Anti-Reflection Coatings

| Wavelength, nm | Reflection per surface (AOI=0°) | Laser Damage Threshold *, J/cm ² | Coating suffix | Price, EUR | |
|----------------|---------------------------------|---------------------------------------------|----------------|------------|-------|
| | | | | Ø25.4 | Ø50.8 |
| 266 | R<0.3% | 3.5 | AR266HT | 135 | 250 |
| 333 – 353 | R<0.2% | 4 | AR343HT | 135 | 250 |
| 355 | R<0.2% | 4 | AR355HT | 135 | 250 |
| 380 – 420 | R<0.2% | 4 | AR400HT | 105 | 180 |
| 500 – 530 | R<0.1% | 7 | AR515HT | 105 | 180 |
| 532 | R<0.1% | 7 | AR532HT | 105 | 180 |
| 760 – 840 | R<0.1% | 10 | AR800HT | 105 | 180 |
| 1000 – 1060 | R<0.1% | 15 | AR1030HT | 105 | 180 |
| 1064 | R<0.1% | 15 | AR1064HT | 105 | 180 |
| 1530 – 1570 | R<0.1% | 10 | AR1550HT | 105 | 180 |
| 1530 – 1570 | R<0.01% | 10 | AR1550HHT | 155 | 285 |

Other laser line coatings are available for the wavelength range from 193 nm to 12 µm.

DUAL BAND ANTI-REFLECTION COATINGS

Standard Dual Band Anti-Reflection Coatings

| Wavelength, nm | Reflection per surface (AOI=0°) | Laser Damage Threshold *, J/cm ² | Coating suffix | Price, EUR | |
|----------------|---------------------------------|---------------------------------------------|----------------|------------|-------|
| | | | | Ø25.4 | Ø50.8 |
| 343 + 515 | R<0.5% | 2 | ARD515 | 54 | 84 |
| 355 + 532 | R<0.5% | 2 | ARD532 | 54 | 84 |
| 515 + 1030 | R<0.5% | 4 | ARD1030 | 42 | 67 |
| 532 + 1064 | R<0.5% | 4 | ARD1064 | 42 | 67 |

Other dual band coatings are available in the wavelength range from 193 nm to 12 µm.

IBS Dual Band Anti-Reflection Coatings

| Wavelength, nm | Reflection per surface (AOI=0°) | Laser Damage Threshold *, J/cm ² | Coating suffix | Price, EUR | |
|----------------|---------------------------------|---------------------------------------------|----------------|------------|-------|
| | | | | Ø25.4 | Ø50.8 |
| 400 + 800 | R<0.2% | 4 | ARD800HT | 125 | 205 |
| 515 + 1030 | R<0.1% | 10 | ARD1030HT | 115 | 195 |
| 532 + 1064 | R<0.1% | 10 | ARD1064HT | 115 | 195 |

* Measured at design wavelength, 10 ns, 50 Hz.

BROADBAND ANTI-REFLECTION COATINGS

Standard Broadband Anti-Reflection Coatings

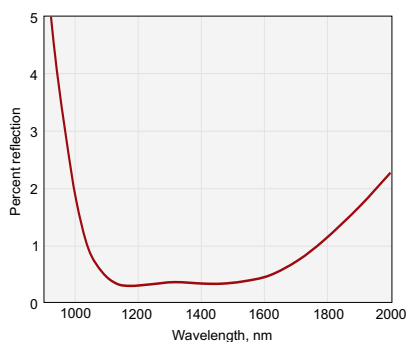
| Wavelength, nm | Reflection per surface (AOI=0°) | Laser Damage Threshold *, J/cm ² | Coating suffix | Price, EUR | |
|----------------|---------------------------------|---------------------------------------------|----------------|------------|-------|
| | | | | Ø25.4 | Ø50.8 |
| 210 – 400 | R<2% | 1 | ARB300 | 84 | 102 |
| 400 – 700 | R<0.9% | 2 | ARB550 | 67 | 80 |
| 350 – 900 | R<1.5% | 2 | ARB625 | 72 | 94 |
| 650 – 1100 | R<0.7% | 3 | ARB825 | 73 | 86 |
| 700 – 900 | R<0.5% | 3 | ARB800 | 60 | 82 |
| 1050 – 1700 | R<0.7% | 2 | ARB1375 | 91 | 107 |

Other broadband coatings are available for the wavelength range from 193 nm to 12 µm.

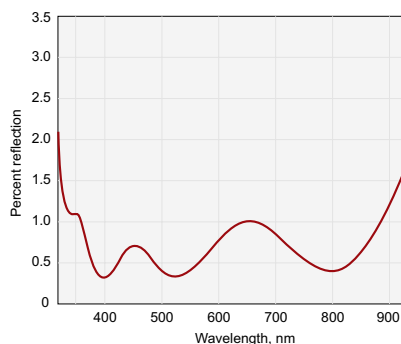
IBS Broadband Anti-Reflection Coatings

| Wavelength, nm | Reflection per surface (AOI=0°) | Laser Damage Threshold *, J/cm ² | Coating suffix | Price, EUR | |
|----------------|---------------------------------|---------------------------------------------|----------------|------------|-------|
| | | | | Ø25.4 | Ø50.8 |
| 700 – 900 | R<0.1% | 5 | ARB800HT | 115 | 195 |
| 900 – 1100 | R<0.1% | 5 | ARB1000HT | 115 | 195 |

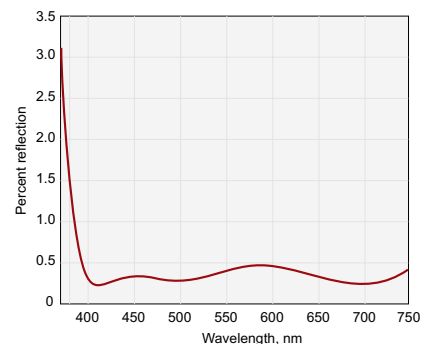
* Measured at design wavelength, 10 ns, 50 Hz.



ARB1375. R<0.7% @ 1050–1700 nm, AOI=0°.



ARB625. R<1.5% @ 350–900 nm, AOI = 0°.

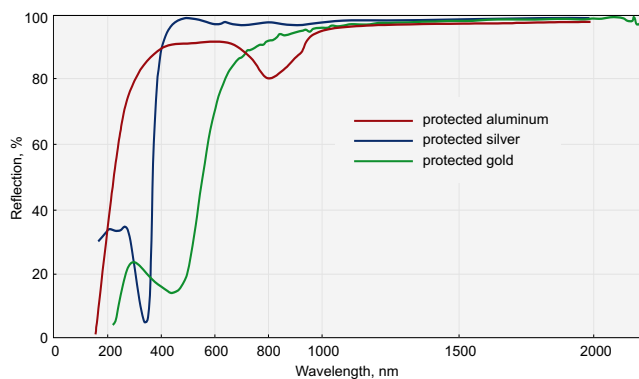


ARB550. R<0.9% @ 400–700 nm, AOI = 0°.

METALLIC COATINGS

Protected metallic coatings provide a moderate level of reflection over a very broad spectral range and are widely used as mirrors. These coatings are protected by a thin layer of dielectric material in order to make them durable. Enhanced metallic coatings provide greater reflection across the operating bandwidth. These coatings are enhanced by adding a multilayer dielectric stack.

Metal coatings modify the state of polarization of an incident beam of light and are therefore inappropriate for most polarization sensitive applications.



Features

- Protected gold
- Protected aluminium
- Protected silver
- Enhanced aluminium

| Wavelength, nm | Average reflection, % | Type | Laser Induced Damage Threshold at 1064 nm, 50 Hz, 11 nsec, J/cm ² | Coating number | Price, EUR | |
|----------------|-----------------------|------------------------|------------------------------------------------------------------------------|----------------|------------|-----|
| | | | | | Ø25 | Ø50 |
| 250–350 | >88 | UV enhanced aluminium | 0.25 | 0005 | 41 | 52 |
| 450–650 | >91 | VIS enhanced aluminium | 0.25 | 0010 | 30 | 40 |
| 300–IR | >86 | Protected aluminium | 0.25 | 0015 | 20 | 28 |
| 400–IR | >96 | Protected silver | 1.8 | 0025 | 67 | 76 |
| 900–IR | >98 | Protected gold | 1.0 | 0030 | 98 | 107 |

Please contact us for other wavelengths and AOI's.