1. **Anti-Reflection (AR) Coatings:**

1.1. V-coatings for simple wavelengths.

Optimized for any laser or other sources wavelengths in ultraviolet UVB (280-315), UVA (315-400), visual VIS (360-78) and near infrared NIR (780-2500) nm ranges, for example:

- UV range (240-400nm) for KrF - 248nm, XeF -351nm or 353nm. Reflection R<0,25% for optimal wavelength;
- VIS range (360-780nm), etc. 532, 546, 633 or 780nm. Reflection R<0,15% for optimal wavelength;
- NIR range (780-2500nm), etc. 850, 905, 940, 1064 or 1550nm with reflection R<0,25% for optimal wavelength.

![Fig.1. Nominal spectral characteristics for V – coatings.](image-url)

1.2. Multilayer (MLC) or Broad Band Anti-reflection coatings (W – coatings or BBAR) for UVB, UVA, VIS and NIR spectral ranges.

- 245 - 440nm with $R_{max}<1\%$ and $R_{avg}<0,5\%$;
- 400 -590 nm with $R_{max}<0,3\%$ and $R_{avg}<0,15\%$;
- 450 -650 nm with Rmax<0,5%;
- 400 -490 nm with Rmax<0,1%;
- 900 -2500 nm with Rmax<1,5% and Rav<1%;
- 420 -1000 nm with Rmax<1,7% and Rav<1%;
- 450 -850 nm with Rmax<1% and Rav<0,5%;

![W (Broad Band AR)-coatings](image)

Fig.2. Nominal spectral characteristics for BBAR coatings.

1.3. Single Layer (SLC) MgF2 coatings for simple wavelengths.

Optimized for simple wavelengths, etc. 550, 633, 1064 or 1550nm with R<0,2% for optimal wavelength.
Fig.3. Nominal spectral characteristics for MgF2 coating for 550nm.

1.4. Dual- and Triple Band coatings (for 2 or 3 wavelengths).

Optimized with minimal reflection for two or three wavelengths, etc.:

- Triple Band for 532nm with Rmax<0,15%, 633nm with Rmax<0,1% and 1064nm with Rmax<0,15%.
1.5. Broad Band Anti-Reflection coatings BBAR for Long Wavelength Infrared LWIR spectral range (8-12µm).

For Long Wavelength Infrared spectral range 8-12 µm with \( R_{\text{max}} < 1\% \) and \( R_{\text{av}} < 0.5\% \);

1.6. Hard Carbon Coatings (HC) or Diamond like coatings (DLC) for wavelength 10 µm.

Durable on mechanical impacts coating with \( R < 3\% \) for spectral range 8-12 µm.
Fig. 5. Nominal spectral characteristics for AR coatings for LWIR spectral range.