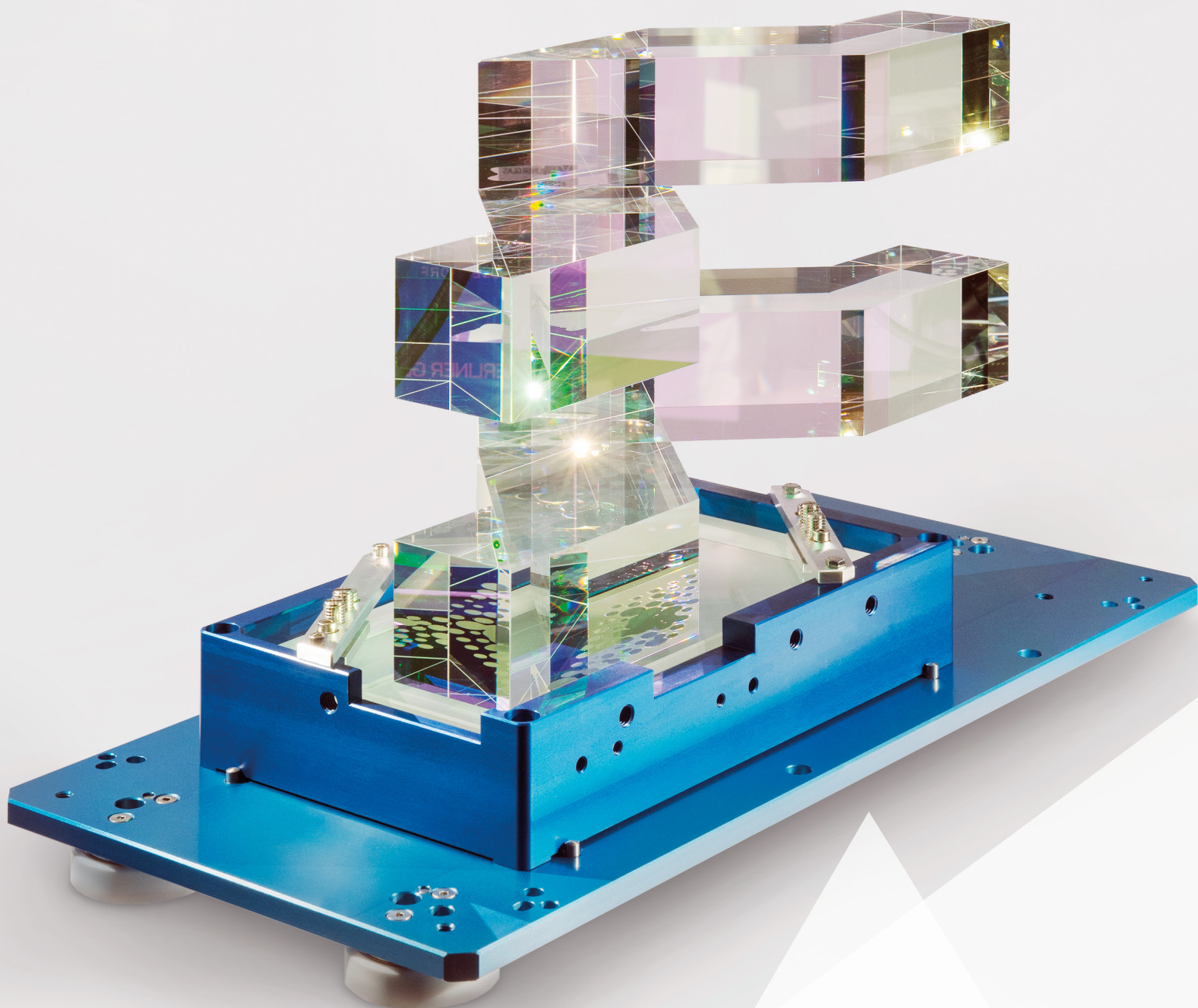


COATING.

WIDE RANGE OF SPECIFIC SOLUTIONS.



COATING.

The coatings listed show a part of our coating capabilities. We also develop customized solutions and advise you. Environmental- and stress tests of the coatings for the qualification are carried out in-house.

SUBSTRATES

Typical substrates are:

- ▶ Wide variety of optical glasses
- ▶ Flat glass, lenses and prisms
- ▶ Sapphire, quartz and quartz glass as well as glass ceramic and ceramic
- ▶ Substrate size up to 400 x 800 mm, Ø 450 mm
- ▶ Contract coating on customer substrates on request

SPECIFICATIONS

General

- ▶ Wavelength ranges for:
 - ▶ Metallic mirrors 120 nm–12 µm
 - ▶ Dielectric mirrors 190 nm–3 µm
 - ▶ Filters, beam splitters, black chrome 250 nm–3 µm
 - ▶ Antireflection coatings 190 nm–5 µm
 - ▶ Conductive layers 400 nm–1.6 µm
- ▶ All polarization types are specifiable (p, s and average value)

Mirrors

- ▶ Metallic and dielectric mirrors
- ▶ Narrowband and broadband mirrors
- ▶ Front and back surface mirrors

Antireflection coatings

- ▶ Narrow, multi- and wide-band spectral ranges
- ▶ Residual reflection $\leq 0.05\%$

Filters

- ▶ Edge filters: Long- (LWP) and short pass (SWP)
- ▶ Edge position tolerance from 0.5 % of the nominal wavelength
- ▶ Narrowband filters (T-band) and notch filters (R-band)
 - ▶ Center position tolerance from 0.2 % of the nominal wavelength
- ▶ Laser protection filters
- ▶ Single and multi-band filters with freely definable widths and positions

Beam splitters

- ▶ Available on a plano-parallel plate or prism cube:
 - ▶ Cemented
 - ▶ Optically contacted
 - ▶ With defined airspace
- ▶ Polarizing beam splitters (PBS)
- ▶ Non-polarizing beam splitters (NPBS)
- ▶ Neutral beam splitters
- ▶ Narrow, wide or multiple spectral regions with freely definable splitting ratios

Absorbing layers

- ▶ Chrome-free absorber layers available
- ▶ Narrow- and broadband
- ▶ Efficient from air and/or glass sides
- ▶ Structurable (etch and lift-off processes)

Layers for non-optical applications

- ▶ Wear protection layers for glass, glass ceramic and ceramic
 - ▶ Nitridic layers, e. g. CrN
- ▶ Barrier layers, e. g. etch stop

Surface imperfections

- ▶ Assessment according to ISO 10110
- ▶ Specifications depending on the layer system e. g.:
 - ▶ AR: 5/C3 x 0.025 over Ø 25 mm
 - ▶ Filters: 5/C3 x 0.040 over Ø 25 mm