

The optic fits perfectly to your application due to its high-quality processing. The viewports are qualified for challenging laser applications thanks to minimal scattering and distortion.

| View Diameter | Optical Material | Surface Finish | | | Coating | Laser damage threshold (for 10 ns, 10 Hz) | Reflection* | |
|---------------|------------------|----------------|-------|-------------|---------|--|---|--|
| | | Flatness | S/D | Parallelism | | | | |
| 20 mm | Fused Silica | $\lambda/10$ | 10/5 | $< 5''$ | a | 261–266 nm | 2 J/cm ² | |
| | | | | | b | 350–450 nm | 10 J/cm ² | |
| | Borosilicate BK7 | $\lambda/10$ | 10/5 | $< 5''$ | c | 400–700 nm | 7,5 J/cm ² | |
| | | | | | d | 523–532 nm | 10 J/cm ² | |
| | | | | | e | 610–860 nm | 7,5 J/cm ² | |
| | | | | | f | 700–1100 nm | 7,5 J/cm ² | |
| | | | | | g | 1047–1064 nm | 10 J/cm ² | |
| | | | | | h | 523–532 nm 1047–1064 nm | 5 J/cm ² 10 J/cm ² | |
| 34 mm | Borosilicate BK7 | $\lambda/4$ | 60/40 | $< 1'$ | a | 405 nm | > 1 J/cm ² | |
| | | | | | b | 532 nm | > 1 J/cm ² | |
| | | | | | c | 633 nm | > 1 J/cm ² | |
| | | | | | d | 785 nm | > 1 J/cm ² | |
| | | | | | e | 980 nm | > 1 J/cm ² | |
| | | | | | f | 1064 nm | > 1 J/cm ² | |
| | | | | | g | 1550 nm | > 1 J/cm ² | |
| | | | | | | | | |

* The graph represents the coating properties in general. Deviations at the product are valid. Only the written-out specs are mandatory.

The wide range series offers a great variety of crystals for applications in the IR spectrum (e.g. thermographic metrology) and materials with a high transmission from UV to IR such as Calcium- and Barium fluoride.

| View Diameter | Optical Material | Surface Finish | | | Coating | | Transmission** |
|---------------|--------------------------------|----------------------------------|--------|-------------|----------------------------------|----------------------------------|----------------|
| | | Flatness | S/D | Parallelism | | | |
| 20mm | Bariumfluorid | $\lambda/4 @ 633\text{nm}$ | 40/20 | $< 1'$ | --- | uncoated 3 – 5 μm | |
| | Germanium | $1\lambda @ 633\text{nm}$ | 40/20 | $< 1'$ | — | uncoated 8 – 12 μm | |
| | Sapphire | $1\lambda @ 633\text{nm}$ | 60/40 | $< 3'$ | | uncoated | |
| | Silicon | $\lambda/2 @ 633\text{nm}$ | 40/20 | $< 3'$ | — | uncoated 3 – 5 μm | |
| 20 mm/44 mm* | Calcium fluoride | $\lambda/8 @ 633\text{nm}$ | 40/20 | $< 10''$ | --- | uncoated | |
| | Zinc selenide | $1\lambda @ 633\text{nm}$ | 40/20 | $< 1'$ | — | uncoated 7 – 12 μm | |
| 34mm | Germanium | $\lambda/10 @ 10,6\mu\text{m}$ | 60/40 | $< 1'$ | — | uncoated 3 – 5 μm | |
| | | | | | — | 3 – 12 μm | |
| | | 8 – 12 μm | | | | | |
| | — | uncoated 3 – 12 μm | | | | | |
| Zinc selenide | $\lambda/10 @ 10,6\mu\text{m}$ | 60/40 | $< 1'$ | | uncoated 8 – 12 μm | | |
| | | | | | 3 – 12 μm | | |
| Zinc sulfide | $\lambda/10 @ 10,6\mu\text{m}$ | 60/40 | $< 1'$ | --- | uncoated 3 – 12 μm | | |

* Optical specs on request for optics with viewdiameter of 44mm.

** The graph represents the coating properties in general. Deviations at the product are valid. Only the written-out specs are mandatory.

The standard HiPO-series is available with a selection of established AR-coatings from UV to NIR. The high-quality optics allow an outstanding transmission quality of optical signals into your vacuum chamber.

| View Diameter | Optical Material | Surface Finish | | | Coating | Reflection/Transmission* | |
|---------------|------------------|----------------|-------|-------------|--------------|--------------------------|--|
| | | Flatness | S/D | Parallelism | | | |
| 20 mm/44 mm | Borosilicate BK7 | $\lambda/10$ | 20/10 | < 5" | a | uncoated | |
| | | | | | d | 350 – 700 nm | |
| | | | | | e | 650 – 1050 nm | |
| | | | | | f | 1050 – 1620 nm | |
| | Fused Silica | $\lambda/10$ | 20/10 | < 5" | c | uncoated | |
| | | | | | b | 290 – 370 nm | |
| 34 mm | Borosilicate BK7 | $\lambda/4$ | 60/40 | < 1" | a | uncoated | |
| | | | | | e | 425 – 675 nm | |
| | | | | | f | 400 – 1000 nm | |
| | Fused Silica | $\lambda/10$ | 20/10 | < 5" | g | 600 – 1050 nm | |
| | | | | | b | uncoated | |
| | | | | | c | 250 – 425 nm | |
| d | | | | | 250 – 700 nm | | |
| | | | | | f | 400 – 1000 nm | |
| | | | | | e | 600 – 1050 nm | |

* The graph represents the coating properties in general. Deviations at the product are valid. Only the written-out specs are mandatory.