CALCIUM FLUORIDE (CaF_2) COMPONENTS

- **Useful transmission over the spectral range from 0.2 to 8.0 microns**
- **Low solubility**

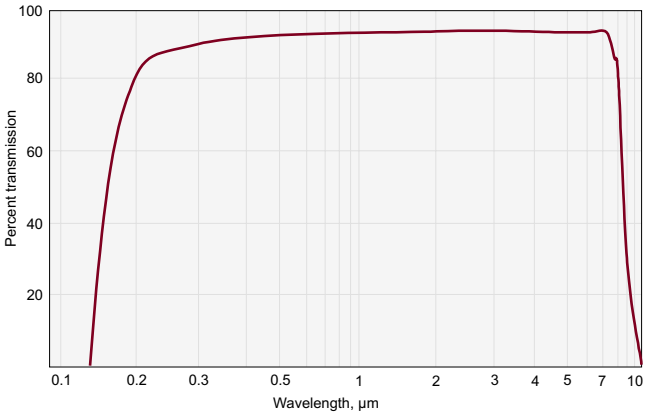
Two grades of materials are available: one for UV and the other for IR applications. Low solubility and a wide transmission range makes it useful for many applications, including:

– mirror substrate for UV laser systems;

– substrate for manufacturing windows, lenses for UV, IR applications.

Due to its composition CaF_2 has a much longer useful life than most materials when used in a fluorine environment.

CaF_2 lenses, windows, mirrors, prisms, beamsplitters and beamselectors are available upon request.



External transmission of CaF_2 window of 10 mm thickness.

PHYSICAL PROPERTIES

Crystal type	cubic
Lattice constant, Å	a = 5.462
Density, g/cm³	3.18
Melting point, °C	1418
Refractive index @ 1.0 μm	n = 1.4289
Transmission band, μm	0.125–10

SPECIFICATIONS

Material	optical quality CaF_2 crystal ($\Delta n/cm < 0.5\times10^{-5}$)
Spectral range	UV, VIS, IR
Surface quality	40–20 scratch & dig
Clear aperture	90% of the diameter
Diameter tolerance	+0.0 -0.1 mm
Thickness tolerance	±0.2 mm
Surface flatness	λ/4 @ 633 nm
Parallelism	3 arcmin
Maximum available size of optical components up to dia	120 × 20 mm

Catalogue number	Diameter, mm	Thickness, mm	Substrate	Price, EUR
530-5253	25.4	3.0	UV grade CaF_2	96
530-5385	38.1	5.0	UV grade CaF_2	190
530-5506	50.8	6.0	UV grade CaF_2	310
530-6253	25.4	3.0	IR grade CaF_2	84
530-6385	38.1	5.0	IR grade CaF_2	99
530-6506	50.8	6.0	IR grade CaF_2	175
530-6710	70.0	10.0	IR grade CaF_2	230

Please contact us for other size, shape or precision requirements.

HOUSING ACCESSORIES

- Flipping Mirror / Beamsplitter Mounts 840-0155

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