

## MgF<sub>2</sub>, CaF<sub>2</sub>, BaF<sub>2</sub>, LiF: VUV-, VIS-, IR- Grades

Preformed and prepolished substrates of the materials BaF<sub>2</sub>, CaF<sub>2</sub>, LiF, MgF<sub>2</sub> are available in sizes up to ca. 150mm in dependence on the orientation.

λ [μm]	BaF <sub>2</sub>		CaF <sub>2</sub>		LiF		MgF <sub>2</sub>		
	n	T(λ) [%]	n	T(λ) [%]	n	T(λ) [%]	n <sub>o</sub>	n <sub>e</sub>	T(λ) [%]
refraction, internal transmission, 10mm									
0.120	-	-	-	-	1.5771	>15	-	-	>20
0.140	-	-	1.6254	>25	1.5103	>35	1.5034	1.5186	>35
0.150	1.6776	>20	1.5770	>40	1.4901	>50	1.4792	1.4941	>50
0.200	1.5573	>80	1.4952	>90	1.4391	>90	1.4232	1.4386	>95
0.480	1.4790	>95	1.4373	>99	1.3951	>98	1.3804	1.3923	>97
0.486	1.4786	>95	1.4371	>99	1.3949	>98	1.3802	1.3921	>97
0.546	1.4759	>96	1.4349	>99	1.3931	>98	1.3786	1.3904	>98
0.588	1.4745	>96	1.4339	>99	1.3921	>98	1.3777	1.3895	>98
0.644	1.4731	>96	1.4327	>99	1.3911	>98	1.3768	1.3886	>98
0.656	1.4728	>97	1.4325	>99	1.3909	>98	1.3766	1.3884	>98
1.00	1.4687	>97	1.4289	>99	1.3871	>97	1.3737	1.3853	>98
3.00	1.4612	>97	1.4179	>99	1.3665	>97	1.3619	1.3725	>98
4.00	1.4568	>97	1.4097	>99	1.3493	>93	1.3525	1.3623	>98
5.00	1.4511	>97	1.3990	>99	1.3266	>88	1.3401	1.3488	>97
7.00	1.4357	>97	1.3694	>97	1.2621	>15	1.3045	1.3101	>55
8.00	1.4259	>97	1.3499	>88	-	-	-	-	>20
10.00	1.4014	>85	1.2996	>20	-	-	-	-	-
12.00	1.3697	>42	-	-	-	-	-	-	-
12.50	1.3604	>20	-	-	-	-	-	-	-

λ [μm]	dispersion					
	v(λ)	v(λ)	v(λ)	v(λ)	v(λ)	v(λ)
e-line 0.546	80.7	94.5	98.3	105.2	105.5	
d-line 0.588	81.8	94.3	98.0	104.9	105.3	
4.00	45.2	21.7	8.8	16.2	15.3	
10.00	7.1	-	-	-	-	
density	4.89 g/cm <sup>3</sup>	3.18 g/cm <sup>3</sup>	2.64 g/cm <sup>3</sup>	3.18 g/cm <sup>3</sup>		
CTE@25°C	18.4x10 <sup>-6</sup> /K	18.4x10 <sup>-6</sup> /K	32.0x10 <sup>-6</sup> /K	llc 8.8, Lc 13.1 x10 <sup>-6</sup> /K		

recommended polishing slurries

- OXAPAD for standard polishing and finishing
- OXAPAAAL under appropriate conditions
- OXAPASOL under appropriate conditions

recommended polishing pads

- OXAPA polishing pad hard 4
- OXAPA polishing pad soft 4, 19 for finishing

recommended polishing pitches

- OXAPAPP 15-34