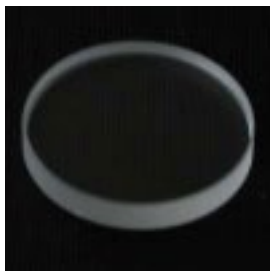




## VUV级抛光氟化镁(MgF<sub>2</sub>)圆形窗片 0.12-7μm



### 产品描述:

MgF<sub>2</sub>能很好地透过VUV区域到莱曼-阿尔法氢线(121nm)甚至更远。氟化镁主要用于UV光谱,并且对于准分子激光具有很好的应用。MgF<sub>2</sub>通过真空Stockbarger技术在各种直径的铸块中生长。氟化镁是一种坚韧的材料,并且抛光良好。因此,它可以工作到zui高标准。MgF<sub>2</sub>具有微弱的双折射性质,并且通常提供垂直于窗面切割的光轴。

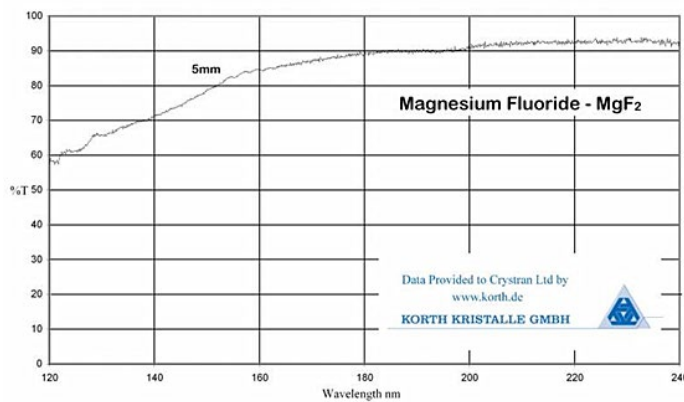
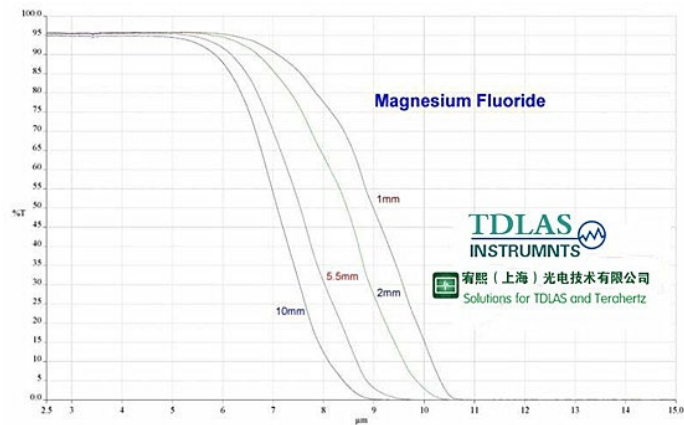
### 通用参数:

|                             |                                                                                                           |
|-----------------------------|-----------------------------------------------------------------------------------------------------------|
| 透射范围:                       | 0.12~7μm (1)                                                                                              |
| 折射率:                        | No 1.413@ 0.22μm (4)                                                                                      |
| 反射损耗:                       | 5.7%@0.22μm (2个表面)                                                                                        |
| 吸收系数:                       | $40 \times 10^{-3} \text{ cm}^{-1}$ at 2.7μm                                                              |
| 吸收峰:                        | 20μm (1)                                                                                                  |
| dn / dT:                    | 2.3 (para) 1.7 (perp) at 0.4μm (1)                                                                        |
| dn /dμ= 0:                  | 1.4μm                                                                                                     |
| 密度:                         | 3.18g / cc                                                                                                |
| 熔点:                         | 1255°C                                                                                                    |
| 热导率:                        | 21 (para) 33.6 (perp) W m <sup>-1</sup> K <sup>-1</sup> at 300K (3)                                       |
| 热膨胀:                        | 13.7 (para) 8.9 (perp) × 10 <sup>-6</sup> / K (1)                                                         |
| 硬度:                         | Knoop 415                                                                                                 |
| 比热容量:                       | 1003 J Kg m <sup>-1</sup> K <sup>-1</sup>                                                                 |
| 介电常数:                       | 4.87 (para) 5.45 (perp) at 1MHz (1)                                                                       |
| 杨氏模量(E) :                   | 138GPa (2)                                                                                                |
| 剪切模量(G) :                   | 54.66GPa (2)                                                                                              |
| 体积模量(K) :                   | 101.32GPa (2)                                                                                             |
| 弹性系数:                       | C11 = 140 C12 = 89 C44 = 57 C13 = 63 C66 = 96 (2)                                                         |
| 表观弹性极限:                     | 49.6 MPa (7200 psi)                                                                                       |
| 泊松比:                        | 0.276 (2)                                                                                                 |
| 溶解度:                        | 0.0002g / 100g water                                                                                      |
| 分子量:                        | 62.32                                                                                                     |
| 类型/结构:<br>(Class/Structure) | Tetragonal, 可沿c轴上切割<br>(Tetragonal P42/mnm (#136) Rutile Structure. Can cleave on c-axis but not easily.) |



折射率:(No = Ordinary Ray 普通射线; Ne = Extraordinary Ray 特殊射线)

| μm     | No     | Ne    | μm     | No     | Ne    | μm     | No     | Ne    |
|--------|--------|-------|--------|--------|-------|--------|--------|-------|
| 0.1137 | 1.7805 |       | 0.1149 | 1.7420 |       | 0.1179 | 1.6800 |       |
| 0.1198 | 1.6510 |       | 0.121  | 1.628  | 1.632 | 0.130  | 1.566  | 1.568 |
| 0.140  | 1.5095 | 1.523 | 0.150  | 1.480  | 1.494 | 0.160  | 1.461  | 1.475 |
| 0.170  | 1.448  | 1.462 | 0.180  | 1.439  | 1.453 | 0.190  | 1.431  | 1.444 |
| 0.200  | 1.423  | 1.437 | 0.220  | 1.413  | 1.426 | 0.248  | 1.403  | 1.416 |
| 0.257  | 1.401  | 1.414 | 0.266  | 1.399  | 1.412 | 0.280  | 1.396  | 1.409 |
| 0.300  | 1.393  | 1.405 | 0.330  | 1.389  | 1.402 | 0.337  | 1.389  | 1.401 |
| 0.350  | 1.387  | 1.400 | 0.355  | 1.386  | 1.399 | 0.400  | 1.384  | 1.396 |
| 0.546  | 1.379  | 1.390 | 0.700  | 1.376  | 1.388 | 1.087  | 1.373  | 1.385 |
| 1.512  | 1.370  | 1.382 | 2.000  | 1.368  | 1.379 | 2.5    | 1.364  | 1.375 |
| 3.030  | 1.360  | 1.370 | 3.571  | 1.354  | 1.364 | 4.000  | 1.349  | 1.359 |
| 4.546  | 1.341  | 1.350 | 5.000  | 1.334  | 1.343 | 5.556  | 1.324  | 1.332 |
| 6.060  | 1.314  | 1.321 |        |        |       |        |        |       |





## 折射率:(No = Ordinary Ray)

| 订购型号        | 规格(D×L)(mm)  | 透射率@121nm       | S/D   | 材料等级 |
|-------------|--------------|-----------------|-------|------|
| MGFP13-1U   | 13.0mm×1.0mm | >40% (typ.>55%) | 40/20 | VUV  |
| MGFP13-2U   | 13.0mm×2.0mm | >40% (typ.>55%) | 40/20 | VUV  |
| MGFP15-1U   | 15.0mm×1.0mm | >40% (typ.>55%) | 40/20 | VUV  |
| MGFP19-1U   | 19.0mm×1.0mm | >40% (typ.>55%) | 40/20 | VUV  |
| MGFP20-1U   | 20.0mm×1.0mm | >40% (typ.>55%) | 40/20 | VUV  |
| MGFP20-2U   | 20.0mm×2.0mm | >40% (typ.>55%) | 40/20 | VUV  |
| MGFP25-1U   | 25.0mm×1.0mm | >40% (typ.>55%) | 40/20 | VUV  |
| MGFP25-1.5U | 25.5mm×1.5mm | >40% (typ.>55%) | 40/20 | VUV  |
| MGFP25-2U   | 25.0mm×2.0mm | >40% (typ.>55%) | 40/20 | VUV  |
| MGFP25-3U   | 25.0mm×3.0mm | >40% (typ.>50%) | 40/20 | VUV  |
| MGFP25-4U   | 25.0mm×4.0mm | >40% (typ.>50%) | 40/20 | VUV  |
| MGFP25-5U   | 25.0mm×5.0mm | >40% (typ.>50%) | 40/20 | VUV  |
| MGFP32-3U   | 32.0mm×3.0mm | >40% (typ.>50%) | 40/20 | VUV  |

