

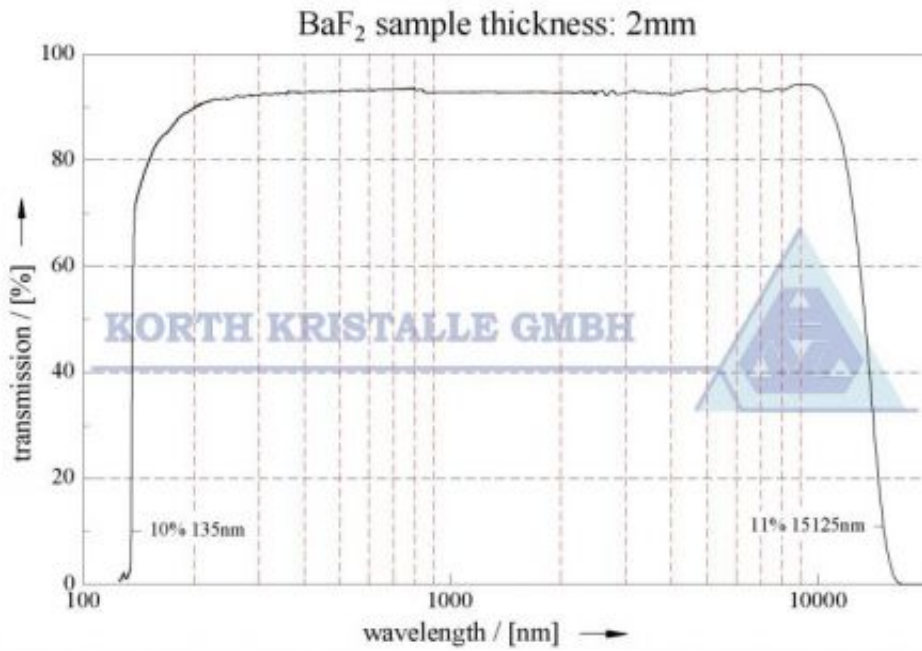
Barium Fluoride (



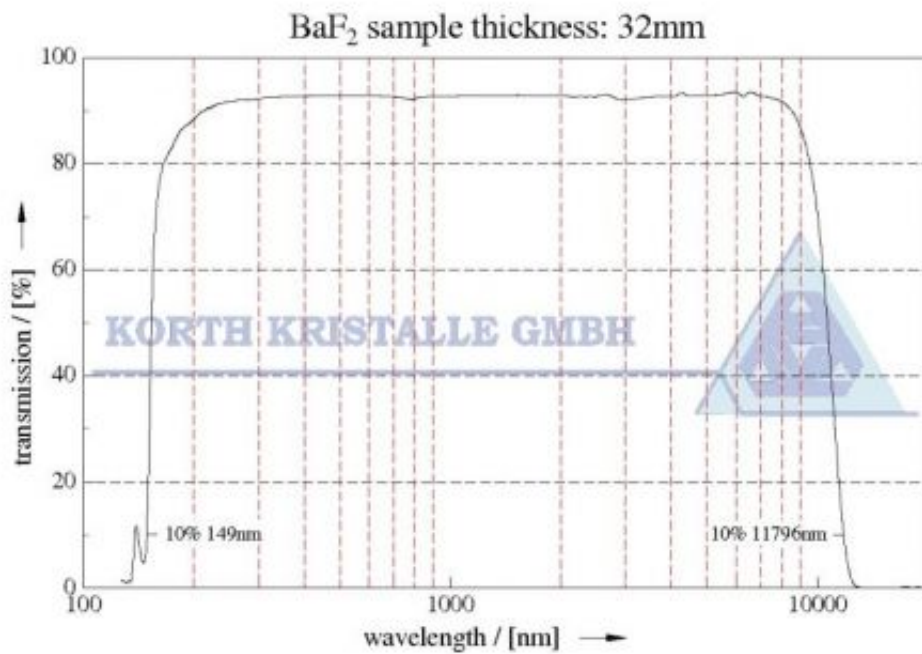
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| Properties (BaF ₂) | |
|---|--|
| Transmission Range (50% of total Transm.) | 0,14 - 14 (thickness 2mm) μm |
| Refractive Index | 1,47326 @633 nm |
| Reflective Loss | 3,4% @4 μm |
| Reststrahlen | 47 μm |
| Density | 4.89 g/cm ³ |
| Melting Point | 1386°C |
| Molecular Weight | 175.36 |
| Thermal Conductivity | 10,9 W/(m·K) @305K |
| Heat Capacity | 410 J/(kg·K) |
| Thermal Expansion | 18,4 · 10 ⁻⁶ /K (273-573K) |
| Hardness (Mohs) | 82 (load 500g) |
| Young`s Modulus | 53,07 GPa |
| Shear Modulus | 25.4 GPa |
| Bulk Modulus | 57,8 GPa |
| Rupture Modulus | 26,9 MPa |
| Elastic Coefficient | C ₁₁ = 91; C ₁₂ = 41,2; C ₄₄ = 25,3 GPa |
| Dielectric Constant | 7.33 @f = 2 MHz |
| Solubility in Water | 0,16 g/100g @25°C |
| Crystal Structure | single crystal, synthetic |
| Crystal Type | cubic, CaF ₂ type structure, a=6,2Å |
| Cleavage Planes | (111) |
| Poisson Ratio | 0,31 |
| Application | Scintillator, IR optics |
| Remarks | susceptible to thermal shock |

Transmission spectrum



Transmission spectrum-2



NOTICE: While we endeavour to ensure that the information on this Website is correct, we do not warrant the accuracy and completeness of the material on this Website.

