# Hot-pressed MgF2 Domes

**Features:**

- Flexural strength: > 20,000 psi
- High transmission at 2-7.5μm
- A knoop hardness: >1350 kg $mm^{-2}$
- Especially for defense, security and aerospace application

**Descriptions:**

Hot-pressed magnesium fluoride or MgF2 domes for missiles and launch tubes is provided, which has high ultraviolet transmittance and high strength properties. It is mainly used as mid-infrared wave window material to produce mid-infrared wave vector domes. With its high infrared transmittance, small thermal expansion coefficient, good mechanical property, and low preparation cost, hot-pressed MgF2 is regarded as the best materials for mid-infrared wave vector dome.

**Specifications:**

| | | | |
|---|---|---|---|
| Materials | Hot-pressed MgF2 | Diameter Range | ~ 280mm |
| Thickness Tolerance | +/-0.2mm (Optional:+/-0.1mm and +/-0.05mm) | Surface Quality | 60/40 S/D |
| Frings (N) | customized | Irregularity (delta N) | customized |
| Chamfer | 0.1~0.3mmx45degree | Coating | Uncoated(Note: coating is unnecessary for its high transmission) |

**Physical and Optical Properties:**

| | | | |
|---|---|---|---|
| Transmission Range | 0.7 to 9μm | Knoop Hardness | >539kg/$mm^2$ |
| Fracture Strength | 96MPa | Compression Strength | >300MPa |
| Bending Strength | >90MPa | Density | >3.17g/$cm^3$ |
| Thermal Expansion | <1.3x$10^{-5}$K-1(25-300℃) | Refractive Index | 1.3812+/-0.005 (at 0.5893μm) |
| Transmittance | >85%(2-7.5μm) | | |



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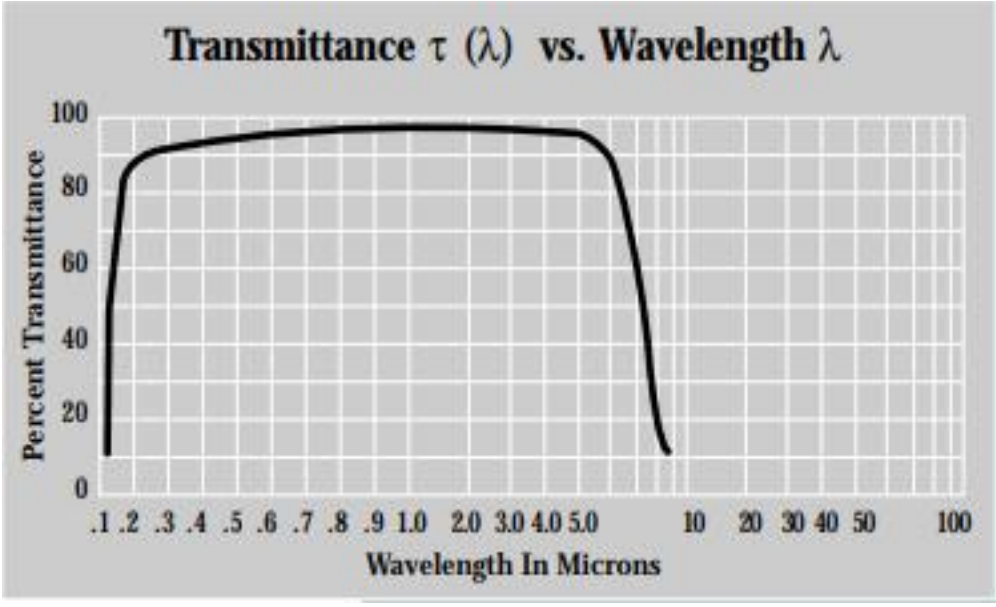
**Technical Images:**

Transmission of Hot-pressed MgF2 Materials




**Related products:**

1) Infrared domes -> Hot-pressed ZnS Domes
2) Infrared domes -> Sapphire domes
3) Infrared windows -> ZnS windows



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