

TDG

TDG 天通控股股份有限公司
TDG HOLDING CO.,LTD.

SAPPHIRE PRODUCTS

蓝宝石光窗产品

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TDG HOLDING CO.,LTD.

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线上商城



微信公众号



证券代码 (Stock Code): 600330

公司简介

About Us

天通控股股份有限公司创办于1984年，拥有多家控股公司和参股公司，是国内首家由自然人直接控股的上市公司，是集科研、制造、销售于一体的国家重点高新技术企业。公司目前已经形成电子材料、电子部品、智能装备三大业务板块，业务涵盖电子信息材料产业链上下游。公司在浙江海宁和宁夏银川建立了蓝宝石产业基地，具有从蓝宝石晶体生长到晶片加工的完整产业链，产品覆盖2-12英寸蓝宝石晶片、各规格光学件，并可根据客户需求进行定制，产品广泛用于LED照明、消费电子等领域，现已发展成为全球蓝宝石行业规模和研发创新能力的领跑者之一。

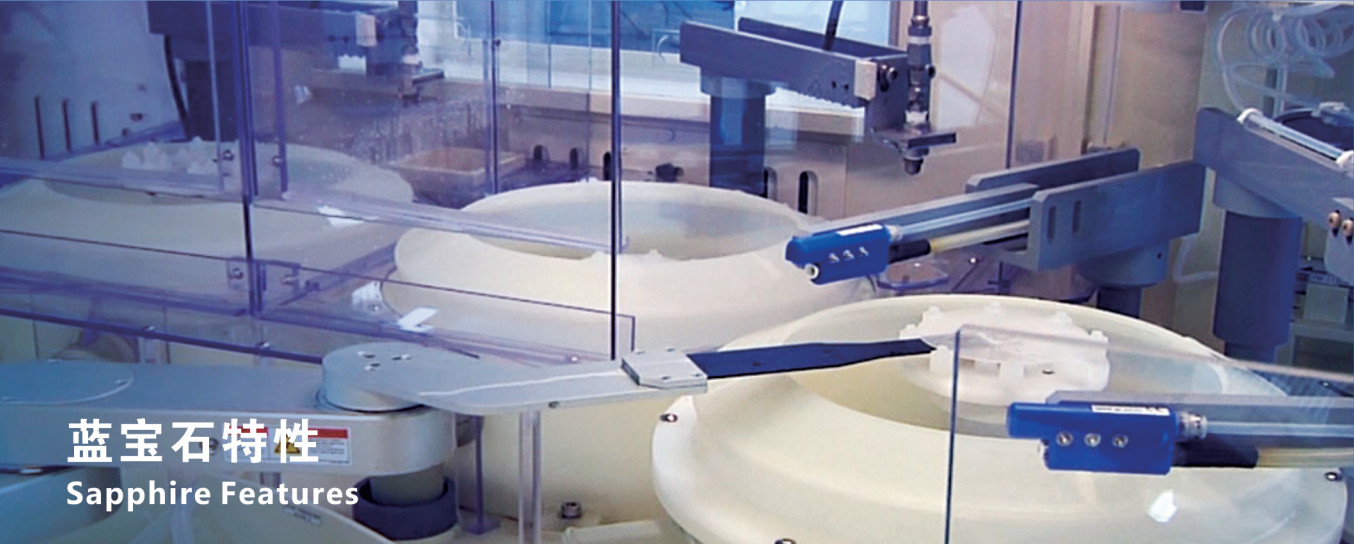
Founded in 1984, TDG has a number of holding companies and shareholding companies. As the first listed company held by natural person in China. TDG focuses on R&D, manufacturing and sales, and has been recognized by the Chinese government as a national key high-tech enterprise. TDG has formed three major business segments: electronic materials, electronic components, and intelligent equipment, the business covers the entire telecom material industry chain.

TDG established sapphire industrial bases in Haining, Zhejiang and Yinchuan, Ningxia, with a complete industrial chain from sapphire crystal growth to wafer processing. The products have covered 2-12 inch sapphire wafers, optical parts of various specifications, and can be customized according to customer needs. Now TDG's Sapphire Products are widely used in LED lighting, consumer electronics and other fields, and have developed into one of the leaders in the global sapphire industry in terms of scale and R&D innovation capabilities.

- ~引进国外切片机，棒料切割成片料，可加工低厚度产品，精度高。厚度公差： $\pm 15\mu\text{m}$ 。
- ~引进国外精磨设备，精度高，稳定性高。厚度公差： $\pm 10\mu\text{m}$ 。
- ~Introducing the import cutting equipment to process low thickness and high precision wafers. Thickness tolerance: $\pm 15\mu\text{m}$;
- ~Introducing the import fine grinding equipment with high precision and high stability. Thickness tolerance: $\pm 10\mu\text{m}$.

- ~采用国外先进的生产管理方法，定期对管理人员及员工进行相关职业技术培训。
- ~通过了ISO 9000质量管理体系，遵循6S管理原则，用严格的品质管控方法保证产品的合格率。
- ~With advanced production management methods, TDG provides administrators and employees with regular vocational technical training.
- ~Passed ISO 9000 quality management system certification, TDG guarantee the products yield with strict quality control method.



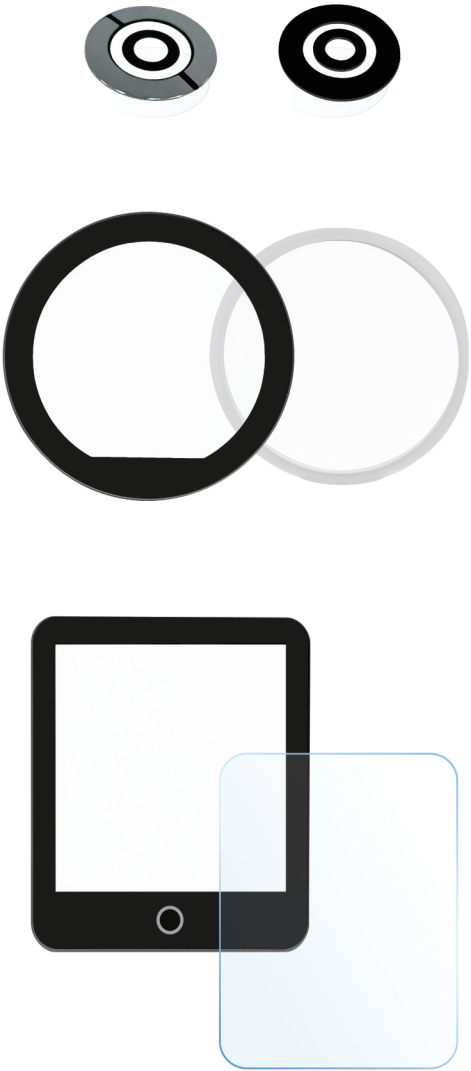


蓝宝石特性
Sapphire Features

| 性能 Properties | 蓝宝石 Sapphire | 玻璃 Glass |
|--|---|----------------------------|
| 化学组成 / Chemical Formula | AL ₂ O ₃ | SiO ₂ |
| 晶体结构 / Crystal Structure | 六方晶体 Hexagonal System a=4.76Å c=12.99Å | 非晶体 |
| 熔点 / Melting Temperature | 2053℃ | 无固定熔点 |
| 密度 / Density | 3.98g/cm ³ | ≈2 .4g/cm ³ |
| 硬度 / Hardness | 9(mohs) | 6~6.5(mohs) |
| 单晶纯度 / Purity | >99.996% | 混合物 |
| 热膨胀系数 / Linear Thermal Expansion Coefficient | 6.7x10 ⁻⁶ /°C parallel to C axis 5.0x10 ⁻⁶ /°C perpendicular to C axis | 9~10 x 10 ⁻⁶ /开 |
| 折射率 / Refractive Index | 1.762~1.770 | 1.52 |
| 透光率(可见光和红外波段) Near and Mid wave IR transmission | ≥85% | ≥90%(可见光) |
| 热容率 / Thermal Capacity | 0.10(cal/°C) | 0.19(cal/°C) |
| 热导率 / Thermal Conductivity | 46.06@0°C 25.12@100°C 12.56@400°C (W/(m.k)) | 0.81~0.93(W/(m.k)) |
| 介电常数 / Dielectric Permeability | 9.4@300Kat A axis~11.58@300K at C axis | 3.5~3.7 (1MHz下) |



蓝宝石手表产品
Sapphire Watch Product



蓝宝石手表盖板 Sapphire Watch Cover
蓝宝石手表心率背盖 Sapphire Back Cover

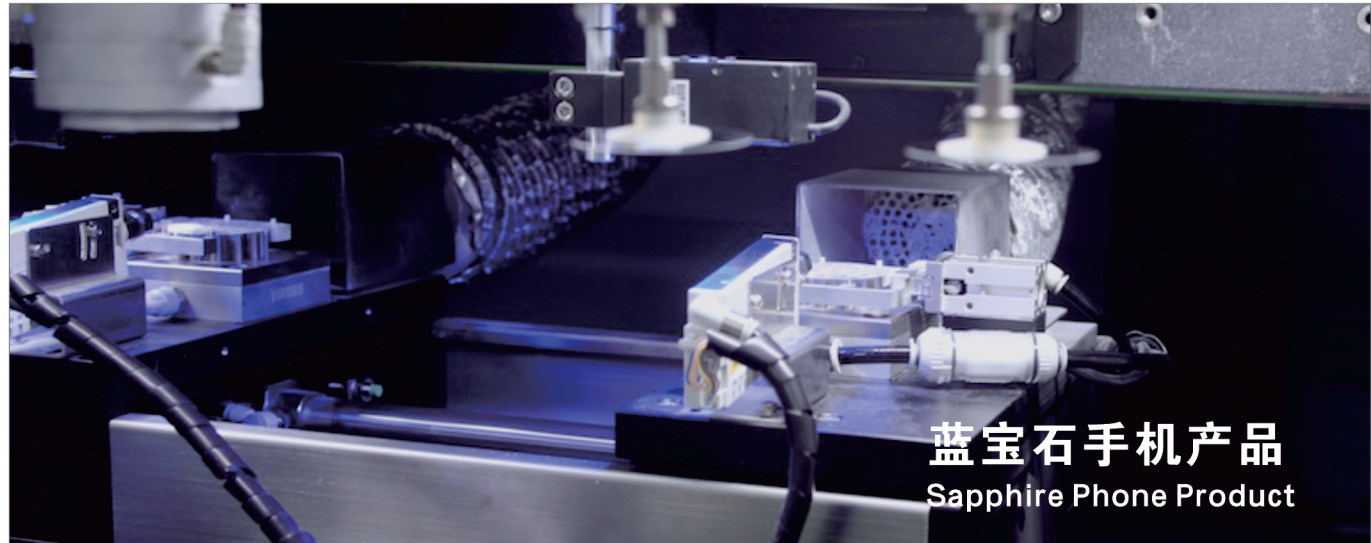
产品优势

- 高灵敏度
- 耐划伤、耐磨损
- 良好的光学透射率
- 化学稳定性好，不易发生腐蚀和潮解

Advantages

- High Sensitivity
- Optimized Scratch Resistance, High Anti-Abrasion
- Excellent Light Transmission
- Good Chemical Stability, High Anti- Corrosion Characteristics

| 产品规格 Product Specification | |
|-------------------------------|--------------|
| 长度 (Length) | 客户规格 ±0.05mm |
| 宽度 (Width) | 客户规格 ±0.05mm |
| 厚度 (Thinkness) | 客户规格 ±0.05mm |
| 平坦度 (Flatness) | ≤10μm |
| 强度 (Strength) | > 550Mpa |
| 特殊处理 (Special Processing) | 按客户要求 |



蓝宝石手机产品
Sapphire Phone Product



蓝宝石手机盖板 Sapphire Phone Cover
蓝宝石摄像头盖板 Sapphire Lens Cover
蓝宝石指纹识别盖板 Sapphire Touch ID Cover

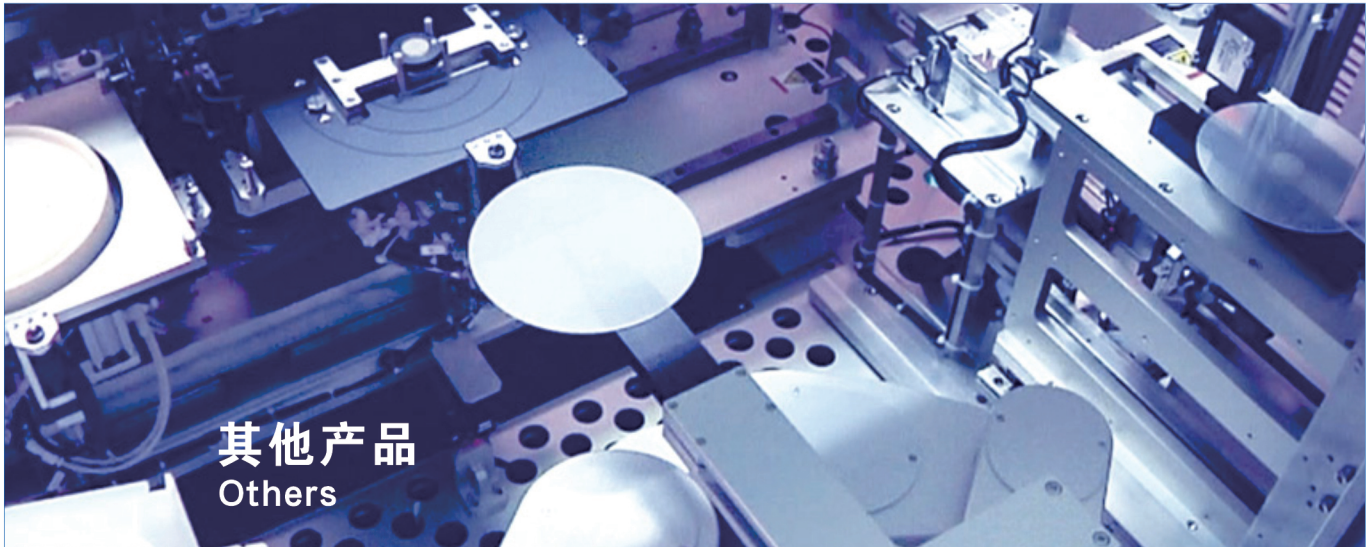
产品优势

- 高灵敏度
- 耐划伤、耐磨损
- 良好的光学透射率
- 化学稳定性好，不易发生腐蚀和潮解

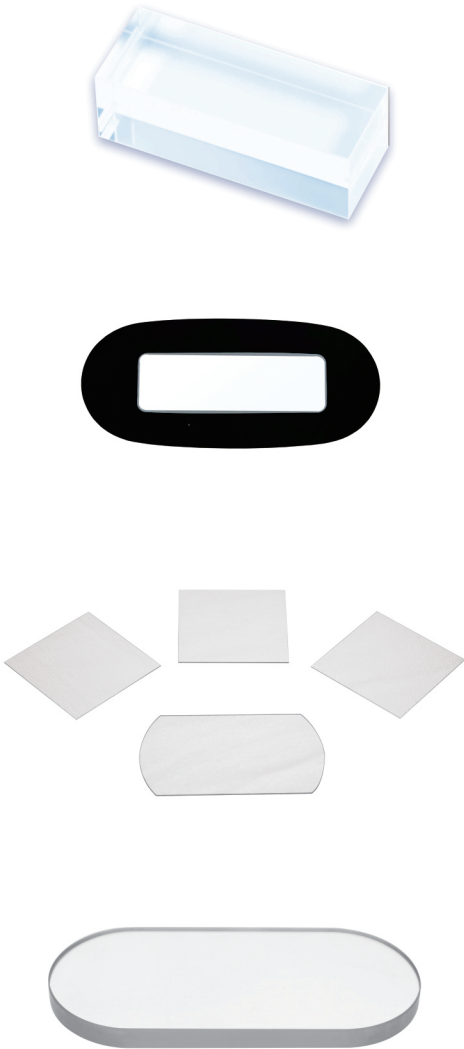
Advantages

- High Sensitivity
- Optimized Scratch Resistance, High Anti-Abrasion
- Excellent Light Transmission
- Good Chemical Stability, High Anti- Corrosion Characteristics

| 产品规格 Product Specification | |
|-------------------------------|--------------|
| 长度 (Length) | 客户规格 ±0.05mm |
| 宽度 (Width) | 客户规格 ±0.05mm |
| 厚度 (Thinkness) | 客户规格 ±0.05mm |
| 平坦度 (Flatness) | ≤5μm |
| 强度 (Strength) | > 550Mpa |
| 特殊处理 (Special Processing) | 按客户要求 |



其他产品
Others



蓝宝石导光块 Sapphire Light Block
蓝宝石扫描仪视窗盖板 Sapphire Scanner Window Cover
蓝宝石光学产品 Optical Products

产品优势

- 高硬度，耐磨损
- 耐高温，耐高压
- 化学稳定性好，不易发生腐蚀和潮解

Advantages

- High Rigidity, High Anti-Abrasion
- High Heat Resistance, high Pressure Resistant
- Good Chemical Stability, High Anti- Corrosion Characteristics

| 产品规格 Product Specification | |
|-------------------------------|--------------|
| 长度 (Length) | 客户规格 ±0.05mm |
| 宽度 (Width) | 客户规格 ±0.05mm |
| 厚度 (Thinkness) | 客户规格 ±0.05mm |
| 平坦度 (Flatness) | 按客户要求 |
| 强度 (Strength) | > 550Mpa |
| 特殊处理 (Special Processing) | 按客户要求 |