

KINTEK SOLUTION

# **Optical Material Catalog**

Contact us for more catalogs of Sample Preparation, Thermal Equipment, Lab Consumables & Materials, Bio-Chem Equipment, etc.



# KINTEK SOLUTION COMPANY PROFILE

>>> About Us

#### **Company Profile**

Kintek Solution Ltd is one technology orientated organization, team members are devoted to probing the most efficicent and reliable technology and innovations in the scienticfic researching equipment, fields like biochemical reacting, new materials researching, heat treatment, vaccum creating, refrigerating, as while as pharmaceutical and petroleum extracting equipment.

#### **Products & Services**

Kintek Solution Ltd is headquartered in Zhengzhou, the capital city of Henan Province, China, and its core business includes the manufacture, distribution and sale of all types of scientific research equipment and laboratory consumables. The wide range of products and services covers the following main areas:

- Sample Preparation Equipment: We provide high-performance sample preparation equipment such as tablet presses, ball mills, vibrating sieves and tablet punching machines, which are capable of meeting a wide range of sample preparation needs and ensuring high quality experimental data and research results.
- **Thermal Equipment:** Our thermal equipment includes tube furnaces, sintering furnaces, vacuum furnaces, atmosphere furnaces, graphite furnaces, dental furnaces, rotary furnaces, and high-temperature furnaces (e.g., MPCVD, CVD, PECVD, electric rotary kilns). These facilities excel in high-temperature processing and materials synthesis, meeting a wide range of needs from basic research to industrial production.
- **Biochemical equipment:** We offer a wide range of biochemical laboratory equipment, including rotary evaporators, vacuum pumps, cold trap chillers,



heating circulators, reactors, short-range distillation equipment, sterilization equipment, and homogenizers. These equipments are widely used in the fields of chemical reaction, biological processing and pharmaceutical manufacturing.

 Laboratory Consumables: We supply a wide range of laboratory consumables such as fine ceramic products, electrochemical consumables, PTFE material products, high purity materials, battery materials, chemical vapor deposition materials, optical materials, thin film deposition components and glass materials. These consumables provide the necessary support for laboratories to ensure the smooth running of experimental processes.

#### **Technological Advantages**

Kintek Solution Ltd has significant technological strengths in the field of scientific research equipment and technical solutions, which enable us to stand out in a competitive marketplace and support our customers with cutting-edge technology. The following are our key technological strengths:

#### Advanced R&D capabilities

- Technological Innovation: Our R&D team is committed to exploring and developing the latest technologies to keep our equipment at the forefront of the industry through continuous technological innovation.
- Customized solutions: Based on the specific needs of our customers, we are able to develop and provide customized equipment to meet specific research requirements and application scenarios.
- Cooperative R&D: We cooperate with leading research institutes and higher education institutions around the world to carry out R&D projects on cutting-edge technologies to ensure that our technologies are always at the forefront of the industry.

#### **High-performance equipment**

- Precision design: Our equipment adopts advanced design concepts to ensure high precision, reliability and performance to meet the stringent requirements of scientific research and industrial applications.
- Advanced materials: We use high-quality materials and components to improve the durability and stability of our equipment, extend its service life and reduce maintenance costs.



#### Strict quality control

- Standardized production: All equipment is manufactured in accordance with international quality standards, and each production step is strictly controlled to ensure product consistency and reliability.
- Comprehensive testing: Comprehensive performance testing and quality inspection are carried out before the equipment is delivered to ensure that it meets the customer's technical specifications and operational requirements.

#### **Comprehensive technical support**

- Technical Service: Provide comprehensive technical support and after-sales service, including equipment installation, commissioning, training and maintenance, to ensure that customers can use our products efficiently.
- Rapid Response: We have established a rapid response mechanism, which can promptly solve the problems encountered by customers in the process of use and reduce equipment downtime.

#### Innovative technology integration

 System Integration: We integrate advanced control systems and automation technologies into our equipment to improve operational efficiency and data accuracy, and streamline operational processes.

Through these technological advantages, Kintek Solution Ltd is able to continue to provide our customers with innovative, efficient and reliable scientific research equipment and solutions to promote the continuous progress of scientific research and industrial applications.

#### Market position and customers

Kintek Solution Ltd is positioned in the market as a leading global provider of high-tech research equipment and solutions, specializing in biochemical reactions, new materials research, heat treatment, vacuum manufacturing, refrigeration, as well as pharmaceuticals and oil extraction. We are committed to brand leadership in research equipment by providing innovative technology and high quality equipment to meet the needs of research organizations and industrial companies in complex research and production processes.



#### **Core Market Positioning:**

- Specialization: We focus on high technology and scientific research, providing advanced equipment and solutions for specialized research institutes, laboratories and industrial applications.
- High-end customers: Our main customers include world-renowned universities, research institutes and various industrial enterprises, which usually have high requirements for equipment performance and technology.
- Technological Innovation: We are committed to technological innovation and customized solutions to ensure that our customers receive cutting-edge technical support to meet the ever-changing needs and challenges in the market.

#### **Market Customer Groups:**

- Research Institutes and Universities: including the world's leading research institutes and institutions of higher learning, who require high-performance research equipment and technical support for basic research, applied research and technology development.
- Industrial companies: covering a wide range of industries such as pharmaceuticals, oil extraction, new materials manufacturing and electronic materials production, these companies rely on reliable equipment and solutions to ensure product quality and productivity during production.
- Laboratories and test centers: organizations that provide laboratory services and quality testing, requiring accurate laboratory equipment and instruments for sample analysis and testing.
- Technology Development Companies: Companies that specialize in the development and application of new technologies and have a high demand for innovative equipment and technical solutions to support their R&D projects and technology validation.

Through clear market positioning and customer groups, we are committed to promoting scientific and technological progress, supporting the innovation and development of our global customers, and continuing to provide high-quality products and services to the market.

#### **Team Introduction**



The team at Kintek Solution Ltd is at the heart of the company's success. In order to realize our vision and maintain our leadership position in the field of high-tech research equipment, we are committed to building an exceptional team with the following attributes:

#### **1. Professionalism**

- Technical Expertise: Our team consists of technical experts and engineers in the field with deep expertise and technical backgrounds to meet complex technical challenges and innovation needs.
- Industry experience: We bring together professionals with extensive experience in the fields of research equipment, material science and engineering technology to ensure a precise grasp of market needs and technological trends.

#### 2. Innovative Spirit

- R&D-driven: The team encourages innovative thinking and technological exploration, supports employees to participate in R&D projects on cutting-edge technologies, and continuously pushes forward the technological advancement of products and solutions.
- Flexible Adaptation: In the face of changing market environment, we have the ability to adapt quickly and flexibly to meet the changing needs of our customers.

#### 3. Collaboration and Communication

- Cross-sectoral collaboration: The team maintains close collaboration between various departments, including R&D, production, sales and customer service, to ensure the smooth progress of projects and timely response to customer needs.
- Efficient Communication: Emphasize internal communication and information sharing, through efficient communication mechanisms and tools to ensure that all team members are consistent with the project goals and progress.

#### **4. Customer Orientation**

 Customer Service: Team members are customer-focused and committed to providing quality service and support to ensure that our customers have the best experience in using our products and solutions.



• Customized solutions: the ability to deeply understand the specific needs of customers and provide customized solutions to meet the special requirements of different customers.

#### 5. Professional Training and Development

- Continuous Learning: We provide continuous training and learning opportunities for our team members to ensure that they are always up-to-date with the latest technology and industry knowledge.
- Career Development: We value the career development and growth of our employees, provide clear career paths and promotion opportunities, and motivate our employees to realize their personal goals and career aspirations within the company.

#### 6. Corporate Culture

- Integrity and Responsibility: The team upholds integrity and responsibility, treats work and customers with honesty and fairness, and builds trust and long-term cooperative relationships.
- Unity and Collaboration: Focusing on the spirit of teamwork, the team emphasizes mutual support and joint efforts to achieve the company's goals and promote the overall success of the team.

By building such a highly qualified, innovation-driven and customer-oriented team, we ensure that Kintek Solution Ltd continues to lead in the field of scientific research equipment and provide excellent products and services to our customers worldwide.

At KINTEK, technology fuels our corporate spirit. This dynamic energy awaits you upon joining our team. Expect a distinctive cultural environment where our global business focus opens doors to diverse customs and traditions worldwide. Here, challenging roles promise to propel your career to new heights.

Our exceptional corporate culture sparks innovation, fosters care, and drives continuous progress among individuals and teams. Our team embodies youthfulness, positivity, enthusiasm, and a bold attitude toward challenges. Passionate about our business, our employees ardently contribute to the company's growth.

We seek individuals brave enough to embrace challenges, harbor grand ambitions, and thirst for knowledge. If you're driven by dreams and passion, and aspire to start your



entrepreneurial journey, KINTEK is the platform to actualize your career plans. We don't just offer opportunities; we pave the way for your future.

Join us at KINTEK, where innovation meets opportunity. Let's create a future that's as promising as your aspirations.

#### **Future Plans**

Kintek Solution Ltd's future plans are aimed at further strengthening our leadership position in the research equipment sector and driving the company forward in terms of technological innovation, market expansion and customer service. The following are our key future directions:

#### 1. Technology Innovation and R&D

- Cutting-edge technology development: Continue to invest resources in the research and development of cutting-edge technologies, such as artificial intelligence, the Internet of Things and nanotechnology, in order to promote equipment intelligence and automation.
- New Product Lines: Expand existing product lines and develop equipment to meet emerging market needs, especially in the areas of biochemistry, biomedicine and high-performance materials.
- Cooperative R&D: Strengthen cooperation with international research institutes and institutions of higher learning to carry out joint R&D projects to ensure that the technology remains at the global leading level.

#### 2. Market Expansion

- Global Market Expansion: Further expand the global market, especially in emerging markets and developing regions, establish more sales and service networks, and enhance the brand's international influence.
- Industry application: Explore and expand the application fields in other industries, such as new energy, environmental protection technology and intelligent manufacturing, to open up new business growth points.

#### 3. Customer Service Enhancement

• Enhancement of customer support: Establish a more complete customer support system, provide 24/7 technical support and maintenance services, and ensure



the efficient experience of customers in the use of equipment.

• Customized services: Provide more customized services and solutions according to customers' individual needs to enhance customer satisfaction and loyalty.

#### 4. Sustainable Development

- Environmentally friendly technology: Develop and adopt environmentally friendly materials and processes to reduce the environmental impact during the production and use of equipment and promote sustainable development.
- Energy saving and consumption reduction: Optimize the energy efficiency of equipment, reduce energy consumption, improve resource utilization efficiency, and support the development of green technology.

#### 5. Internal optimization

- Intelligent management: Implement intelligent management systems and data analysis tools to improve productivity and management and reduce operating costs.
- Employee Training: Enhance employee training and skills upgrading to build a high-quality team to meet changing market demands and technological challenges.

#### 6. Innovation ecosystem

- Establishment of innovation platform: Create innovation platforms and laboratories to support employees and partners in technological innovation and product development.
- Industry Chain Cooperation: Deepen cooperation with the upstream and downstream of the industry chain, integrate resources, and promote the development and implementation of industry technical standards and market norms.

Through these future plans, Kintek Solution Ltd will continue to lead the forefront of science and technology, provide customers with more advanced and reliable products and services, and at the same time, promote the sustainable development of the enterprise and the progress of the industry.







# **High Temperature Resistant Optical Quartz Glass Sheet**

Item Number: KTOM-HTR



#### Introduction

Discover the power of optical glass sheets for precise light manipulation in telecommunications, astronomy, and beyond. Unlock advancements in optical technology with exceptional clarity and tailored refractive properties.



# Optical Quartz Plate Jgs1 / Jgs2 / Jgs3

#### Item Number: KTOM-OQP



#### Introduction

The quartz plate is a transparent, durable, and versatile component widely used in various industries. Made from high-purity quartz crystal, it exhibits excellent thermal and chemical resistance.

Coefficient of Expansion	5.54 × 10-7 (K-1)
Thermal conductivity(20ºC)	1.4W/mºC
Specific heat(20°C)	660J/kgºC
Softening point	1730°C
Annealing point	1250°C



# **Optical Ultra-Clear Glass Sheet For Laboratory K9 / B270 / Bk7**

#### Item Number: KTOM-OGS



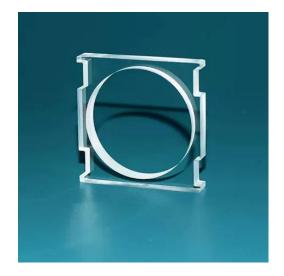
#### Introduction

Optical glass, while sharing many characteristics with other types of glass, is manufactured using specific chemicals that enhance properties crucial for optics applications.



# Infrared Transmission Coating Sapphire Sheet / Sapphire Substrate / Sapphire Window

Item Number: KTOM-ISS



#### Introduction

Crafted from sapphire, the substrate boasts unparalleled chemical, optical, and physical properties. Its remarkable resistance to thermal shocks, high temperatures, sand erosion, and water sets it apart.



# Float Soda-Lime Optical Glass For Laboratory

Item Number: KTOM-FSO



#### Introduction

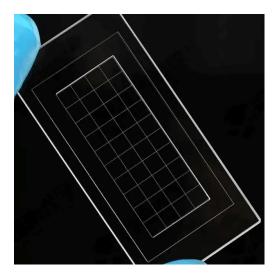
Soda-lime glass, widely favored as an insulating substrate for thin/thick film deposition, is created by floating molten glass on molten tin. This method ensures uniform thickness and exceptionally flat surfaces.

Thermal Conductivity	0.937 W/mK
Density (at 20 °C/68 °F)	2.44 g/cm3
Hardness (Moh's Scale)	6 - 7
Bulk Modulus	4.3 x 1010 Pa
Optical Properties	Refractive Index (I=435): 1.523 (I=645)=1.513
Electrical Properties Dielectric Constant	@ 20°C E= 7.75
Specific Resistivity	1000 Hz 25°C - log R ohms/cm: 9.7



# Zooplankton / Plankton Counting Chamber For Plankton Eggs And Ascaris Eggs

Item Number: KTOM-PAE



#### Introduction

Zooplankton counting chambers, made of methacrylate, have precision-machined grooves with polished bases for transparent and efficient zooplankton counting.



# Single And Double-Sided Coated Glass Sheet/K9 Quartz Sheet

Item Number: KTOM-CGS



#### Introduction

K9 glass, also known as K9 crystal, is a type of optical borosilicate crown glass renowned for its exceptional optical properties.

Density	2.55g/cm3
Specific Heat	879J/kg.℃
Index of Refraction	1.5230
Abbe Number	58.3



### Barium Fluoride (Baf2) Substrate / Window

#### Item Number: KTOM-BFS



#### Introduction

BaF2 is the fastest scintillator, sought-after for its exceptional properties. Its windows and plates are valuable for VUV and infrared spectroscopy.

Transmission range (µm)	0.15~12.5
Transmittance	[90% [0.35~9µm, 3mm[]
Reflection Loss at 2.58µm	6.8%(both faces)
Knoop hardness (kg/mm2)	82 with 500g indenter
Density (g/cm3)	4.89
Melting Point (°C)	1280
Round Shape	Φ5.0; Φ10.0 ; Φ12.7; Φ15.0; Φ20.0
Diameter(mm)	Φ25.4; Φ30.0; Φ38.1; Φ50.8; Φ76.2
Square Shape	5.0x5.0; 10.0x10.0; 15.0x15.0
WxH(mm)	20.0x20.0; 25.0x25.0; 50.0x50.0



### Caf2 Substrate / Window / Lens

#### Item Number: KTOM-CFW



#### Introduction

A CaF2 window is an optical window made of crystalline calcium fluoride. These windows are versatile, environmentally stable and resistant to laser damage, and they exhibit a high, stable transmission from 200 nm to about 7 µm.



### Mgf2 Magnesium Fluoride Crystal Substrate / Window

#### Item Number: KTOM-MFS



#### Introduction

Magnesium fluoride (MgF2) is a tetragonal crystal that exhibits anisotropy, making it imperative to treat it as a single crystal when engaging in precision imaging and signal transmission.

Substrate	Magnesium Fluoride (MgF2)
Surface Quality	40-20
Wavelength Range (nm)	120 - 7000
Index of Refraction nd	1.377



### **Narrow Band Filters / Band Pass Filters**

Item Number: KTOM-NBF



#### Introduction

A narrow bandpass filter is an expertly engineered optical filter specifically designed to isolate a narrow range of wavelengths while effectively rejecting all other wavelengths of light.



# Longpass / Highpass Filters

Item Number: KTOM-LHF



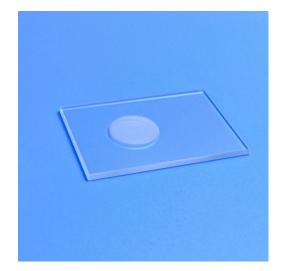
#### Introduction

Longpass filters are used to transmit light longer than the cutoff wavelength and shield light shorter than the cutoff wavelength by absorption or reflection.



# Xrd Sample Holder / X-Ray Diffractometer Powder Slide

Item Number: KTOM-XRD



#### Introduction

X-ray powder diffraction (XRD) is a rapid technique for identifying crystalline materials and determining their unit cell dimensions.



# **Shortpass / Shortpass Filters**

Item Number: KTOM-SLS



#### Introduction

Shortpass filters are specifically designed to transmit light with wavelengths shorter than the cutoff wavelength, while blocking longer wavelengths.



# Zinc Selenide Znse Window / Substrate / Optical Lens

Item Number: KTOM-ZSW



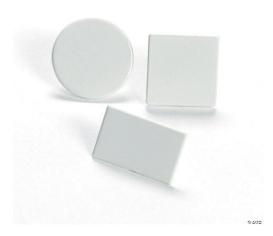
#### Introduction

Zinc selenide is formed by synthesizing zinc vapor with H2Se gas, resulting in sheet-like deposits on graphite susceptors.



# Infrared Silicon / High Resistance Silicon / Single Crystal Silicon Lens

**Item Number: KTOM-HBS** 



#### Introduction

Silicon (Si) is widely regarded as one of the most durable mineral and optical materials for applications in the near-infrared (NIR) range, approximately 1  $\mu$ m to 6  $\mu$ m.

Material	Single crystal of Silicon(Si)
Crystal structure	Face-centred Cubic
Applicable wave band	1.2µm ~ 8µm
Refractive index	3.4223 @5 µm
Thermal conductivity	273.3 W/mK
Coefficient of thermal expansion	2.6×10-6/°C at 20°C



# Infrared Thermal Imaging / Infrared Temperature Measurement Double-Sided Coated Germanium (Ge) Lens

Item Number: KTOM-CGL



#### Introduction

Germanium lenses are durable, corrosionresistant optical lenses suited for harsh environments and applications exposed to the elements.

Learn More

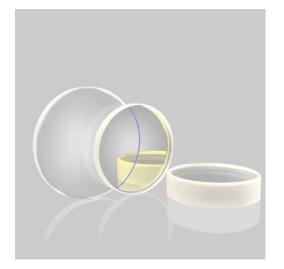
Density	5.33 g/cm3
Melting Point	Face-centred Cubic
Refractive Index	4.002 @ 11µm

Operating Temperature



# Zinc Sulfide (Zns) Window

Item Number: KTOM-ZSS



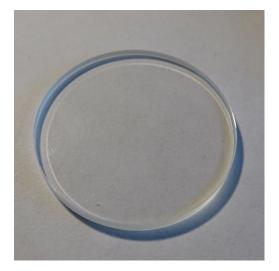
#### Introduction

Optics Zinc Sulphide (ZnS) Windows have an excellent IR transmission range between 8-14 microns.Excellent mechanical strength and chemical inertness for harsh environments (harder than ZnSe Windows)



# 400-700Nm Wavelength Anti Reflective / Ar Coating Glass

Item Number: KTOM-ARG



#### Introduction

AR coatings are applied on optical surfaces to reduce reflection. They can be a single layer or multiple layers that are designed to minimize reflected light through destructive interference.



# Alkali-Free / Boro-Aluminosilicate Glass

#### Item Number: KTOM-ABG



#### Introduction

Boroaluminosilicate glass is highly resistant to thermal expansion, making it suitable for applications that require resistance to temperature changes, such as laboratory glassware and cooking utensils.





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