



金晶产品手册

JinJing Glass Guide Book



金晶集团

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金晶——超白玻璃开拓者
高性能 Low-E 玻璃引领者

Jinjing—Pioneer of Ultra Clear Glass
Leader of High Performance Low-E Energy Efficient Glass

CONTENTS

目录

- P3 总裁致辞**
Words of the President
- P4 公司简介**
Brief Introduction of Jinjing
- P6 荣誉认证**
Certificates
- P8 超白玻璃**
Ultra Clear Glass
- P11 Low-E玻璃**
Low-E Glass
- P20 颜色玻璃**
Tinted Glass
- P21 优质浮法玻璃**
High Quality Float Glass
- P22 工程案例**
Projects
- P35 浮法玻璃生产线**
Float Glass Production Line
- P36 深加工基地设备**
Equipment



上海苹果店
Shanghai Apple Store



北京奥林匹克瞭望塔
Watchtower of Beijing Olympic Park

总裁致辞

Words of the President

作为建材企业之一，我们始终为行业的发展孜孜追求，为传统行业的深层变革不遗余力。我们不仅全心全意给客户遮风挡雨的玻璃产品，更致力提倡一种安全、时尚、节能、环保的生活理念。用科技呵护生活，愿所有金晶人的努力能为您生活缔造出幸福的空间。



金晶集团董事长：王刚

第九至十三届连续五届全国人大代表
中国建筑材料联合会副会长
平板玻璃协会副会长
全国创业企业家
享受国务院特殊津贴

We, Jinjing which is a member of the Building Material Industry, strive for the development of the industry all the time and try our best to accelerate the profound revolution of traditional industries. Not only offer our clients with glass products which is safe, fashion, energy-efficient and environmental favorable. Create beautiful life with S&T. May our efforts create happy life for you all.

公司简介 Brief Introduction of Jinjing

金晶(集团)有限公司坐落于中国玻璃工业的诞生地——山东淄博博山,从1904年中国成立第一家玻璃公司至今,金晶承续了中国平板玻璃115年的历史文明。目前,金晶(集团)有限公司是以玻璃、纯碱及其延伸产品的研发、生产、加工、经营为主业,并逐步进军太阳能新材料、节能新材料领域的大型集团公司,是国家高新技术企业,中国新材料基地骨干企业。下辖山东金晶科技股份有限公司(上市公司)、青岛金晶股份有限公司、滕州金晶玻璃有限公司、宁夏金晶科技有限公司、山东海天生物化工有限公司等九个企业。产业实体分布于鲁中、鲁东、鲁南及华北、西北地区。

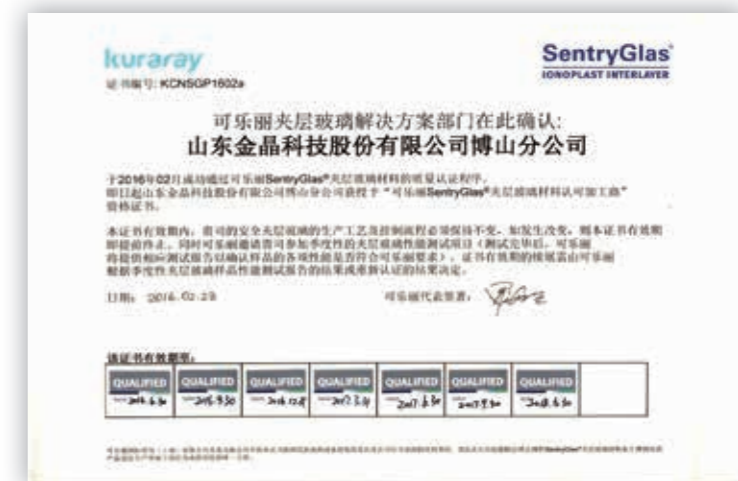
金晶拥有丰富的玻璃产品结构,是国内为数不多同时拥有两种镀膜工艺的企业,包括异地可钢三银Low-E,双银、单银以及在线Low-E玻璃;还包括超白玻璃、压花玻璃、颜色玻璃、汽车玻璃、防火玻璃以及各种深加工复合产品。公司依托丰富的产品结构,以及上下游产业链优势,为客户提供专业化产品应用方案,产品广泛应用于高端门窗、幕墙、采光顶、被动式建筑等领域;同时获得了PPG-ICFP,SIRIM,SGP夹胶等认证,产品远销欧美、日韩、东南亚、澳洲、中东等地区。



Jinjing (Group) Co., Ltd. is located in the birthplace of China glass industry, Boshan Zibo Shandong. It has been 115 years for Jinjing undertaking the civilization of China flat glass industry ever since the foundation of the first glass company in 1904. Currently, Jinjing Group is a large scaled corporation majored in development, production, fabrication and operation of glass, soda ash and their derivatives, and marching into new materials industry of solar and energy efficient products. Jinjing is state-level new and hi-tech enterprise and key enterprise of new material industry in China. It possesses 9 subsidiaries including Shandong Jinjing Science and Technology Stock Co., Ltd., Qingdao Jinjing Glass Stock Co., Ltd., Tengzhou Jinjing Glass Co., Ltd. Ningxia Jinjing Science and Technology Co., Ltd., Shandong Haitian Biochemistry Co., Ltd. Its entities are located in mid, east, south region of Shandong province, northern China and North West China.

Jinjing has a diverse glass product structure, and Jinjing also is one of few enterprises in China which have two kinds of coating technology, including remote, temperable triple, double and single silver offline Low-E and online Low-E glass; In addition, Jinjing have ultra clear glass, patterned glass, tinted glass, automotive glass, fire-resistant glass and all kinds of deep processing compound products. Relying on the diverse product structure, as well as upstream and downstream industry chain advantages, Jinjing have been providing clients with professional product solutions, and its products are widely used in high-end windows and doors, curtain wall, skylights, passive home and other fields. Jinjing has got the PPG certificated ICFP, SIRIM certificate, and the SGP laminating certification, and the products are widely sold to Europe, America, Japan, South Korea, southeast Asia, Australia, Middle East and other regions.





超白玻璃 Ultra Clear Glass

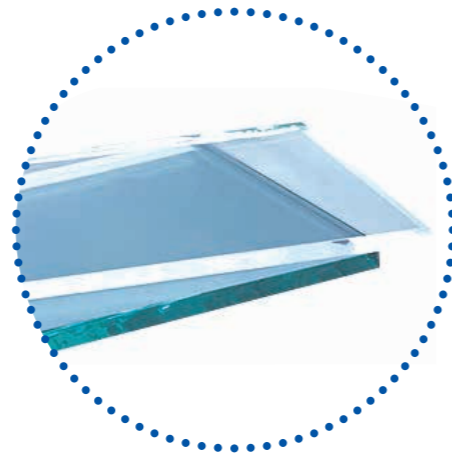
产品介绍 | Brief introduction

超白玻璃是一种超透明低铁玻璃，透光率一般在91%以上，具有低自爆、晶莹剔透、高贵典雅的特性，有玻璃家族“水晶王子”之称。

金晶是国内第一家生产超白玻璃的企业，依托十多年的生产经验和领先的技术优势，已生产出22mm、25mm超厚、18米超长超白玻璃，并通过技术创新，研发出高端“至纯”精品超白、“至透”太阳能超白等系列产品。

Ultra clear glass is a kind of low iron and ultra transparent glass with light transmittance more than 91%, It has the characteristics of low spontaneous breakages, high purity, noble elegance and crowned as 'crystal prince' of the glass family.

As the first domestic manufacturer of ultra clear glass, Jinjing takes advantages of more than 10 years of production experiences and leading technology, produced 22mm, 25mm and 18meter jumbo size ultra clear glass. Jinjing developed high-grade "UL PURE" ultra clear glass, "UL TRANS" solar ultra clear glass etc series by technological innovation.



产品特点 | Products Feature

高安全性:
自爆率低，自应用以来从未自爆；

High safety: low spontaneous breakages, until now there is no spontaneous breakages.

高透过率:
可见光透过率接近92%，比普通玻璃高6%；

High transmittance: visible light transmittance near 92%, 6% higher than clear float glass.

高美观性:
比普通玻璃更美观，具有宝石般的蓝边；

High aesthetics: More beautiful than clear float glass, with a jewel-like blue edge.

高环保性:
已通过国际权威的CE、SGS、REACH认证。

Friendly environment: Has obtained certificates of CE, SGS, REACH.



光学参数 | Optical Parameters

厚度 Thickness	可见光透射率 Visible Light Transmittance	可见光反射率 Visible Light Reflectivity	太阳辐射热 Solar Radiant Coefficient				遮阳系数 Shading Coefficient			U 值 U Value (W/m²K)	隔音 Sound Insulation		紫外光穿透率 UV Penetration 建筑系列 Architecture Series
			直接穿透 Direct Penetration	反射 Reflectivity	吸收 Absorb	总穿透 Total Penetration	短波 Short Wave	长波 Long Wave	总体 Total		Rm(dB)	Rw(dB)	
3mm	91.6%	8%	90%	8%	1%	91%	1.05	0.01	1.05	5.8	26	30	76%
3.2mm	91.5%	8%	90%	8%	2%	91%	1.03	0.01	1.05	5.8	26	30	75%
4mm	91.4%	8%	90%	8%	2%	91%	1.03	0.01	1.05	5.8	27	30	73%
5mm	91.3%	8%	90%	8%	2%	90%	1.03	0.01	1.03	5.8	29	32	71%
6mm	91.1%	8%	89%	8%	3%	90%	1.02	0.01	1.03	5.7	29	32	70%
8mm	91%	8%	88%	8%	4%	89%	1.01	0.01	1.02	5.7	31	34	68%
10mm	90.6%	8%	88%	8%	4%	89%	1.01	0.02	1.02	5.6	33	36	66%
12mm	90.4%	8%	87%	8%	5%	88%	1.00	0.02	1.01	5.5	34	37	64%
15mm	90.1%	8%	86%	8%	6%	87%	0.99	0.02	1.00	5.5	35	38	61%
19mm	89.7%	8%	84%	8%	7%	86%	0.97	0.02	0.99	5.5	37	40	59%
22mm	89.6%	8%	82%	8%	9%	85%	0.95	0.02	0.97	5.5	38	43	58%
25mm	89.0%	8%	81%	8%	9%	84%	0.93	0.02	0.95	5.5	39	45	56%

物理参数 | Physical Parameters

弹性模数 Elasticity Modulus	73.1Gpa
折断模数(最终抗张强度) Rupture Modulus(Tensile Strength-ultimate)	41.4 Mpa
努氏硬度 Knoop Hardness	456kgf/mm2
密度 Density	2.5076 g/cm3
线性膨胀系数 20-300℃ Linear Coefficient of Expansion 20-300 °C	9.28×10-6/°C
线性膨胀系数 20-450℃ Linear Coefficient of Expansion 20-450 °C	9.75×10-6/°C
转化温度 Transformation Temperature	556°C
软化温度或屈服点 Intenerate Temperature or Yield Point	606°C
软化点 Softening Point	710°C
退火点 Annealing Point	547°C
应力点 Strain Point	513°C
高温粘度 log2 High Temperature Viscosity log2	1392°C
高温粘度 log3 High Temperature Viscosity log3	1152°C
高温粘度 log4 High Temperature Viscosity log4	996°C
液相温度 Liquid Phase Temperature	1008°C

应用领域 | Applications

- | | |
|----------|---|
| 建筑内外装 | Interior and Exterior decoration of the Buildings |
| 展柜 | Showcases |
| 工业品 | Industrial products |
| 工艺品、灯具 | Arts and Crafts |
| 玻璃家具、卫浴等 | Furniture and Bathroom products |
| 玻璃桥 | Glass Bridge |



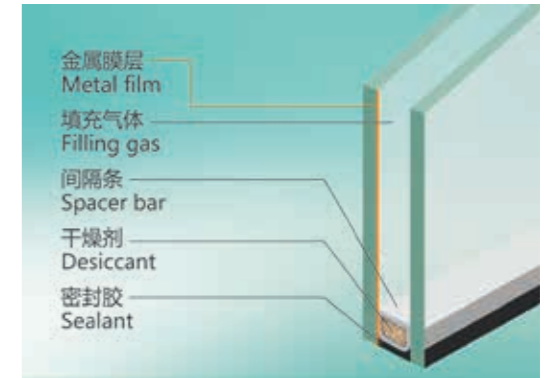
Low-E玻璃 Low-E Glass

产品介绍 | Brief Introduction

Low-E节能玻璃,是在玻璃表面镀上多层金属或其他化合物组成的膜系产品。该产品是一种对可见光具有较高透过率,对远红外线有较高反射率的镀膜玻璃。金晶引进德国莱宝光学Low-E镀膜生产线,年产量1000万平米,可为客户提供高性能的三银、双银、单银Low-E节能玻璃及复合产品。

Low emissivity glass (or Low-E glass) is a type of energy-efficient glass product designed to insulate heat by its coating, which have multilayer of metal and metal oxide applied on the surface of float glass. It has high transmission on visible light and high reflectance on far infrared ray.

Jinjing introduce the world's most advanced Low-E coating production line from Leybold Germany, with annual capacity of 10 million square meters, which can provide customers with the high performance triple silver, double silver, single silver Low-E glass as well as compound glass products. Relying on global leading technology of PPG America, and through independent R&D and innovation, Jinjing has become the first manufacturer in China to supply remote temperable triple silver Low-E glass.



产品规格 | Specification

常规尺寸 Standard Size	最大尺寸 Max Size	产品厚度 Thickness
3300*2440 3300*4880 3300*6000	12000*3300mm	3-19mm

金晶Low-E玻璃独特优势 | Unique advantages of Jinjing Low-E glass

技术优势

- 源于美国PPG公司技术,全球领先;
- 拥有行业为数不多的镀膜专家人才;
- 强大的技术支持队伍,保障客户应用;

Technology advantage

- World-leading technology from PPG America
- Unique resource of professional coating experts in glass industry
- Strong technical service team for customer support

性能优势

- 国内首款异地可钢化三银 Low-E, 光热比可达 2.32;
- 中空 Low-E 可见光透过率最高达 82%, 同类产品行业最高;
- 单层 Low-E 中空 U 值达到 1.01 W/m².K, 同类产品行业最优;

Performance advantage

- First manufacturer in China to supply remote temperable triple silver Low-E, LSG reach 2.32
- IGU visible light transmission 82%, highest in the market
- IGU U-factor reach 1.01 W/m².K, lowest in the market

产业优势

- 金晶拥有丰富的产品结构,具备从原片到成品的全产业链,能为客户提供完整产品解决方案;

Industry advantage

- The most rich product structure, Whole industry chain from float glass sheet to, Complete product solutions for customers

异地可钢三银Low-E玻璃 (Solarban系列) Triple Silver Low-E Glass

性能特点 | Characteristics

1. 卓越的红外热屏蔽功能, 极大提升室内舒适度;
2. 源于美国PPG技术, 成熟运用十余年;
3. 光热比达2.32, 阳光控制与可见光透过的完美结合;
4. 优越的可加工性能, 可内弯、外弯;

1. Excellent shielding function for infrared thermal, greatly improve the indoor comfort.
2. Technology from PPG America, mature application by over 10 years.
3. LSG value can be 2.32, perfect combination of sunlight control and visible light transmission.
4. Excellent processability, and products can be incurve and excurvature.

应用区域: 夏热冬冷及夏热冬暖地区

推荐应用: 绿色建筑

Applied area: tropical & sub-tropical areas

Recommended application: green buildings

性能参数表 | Performance Data

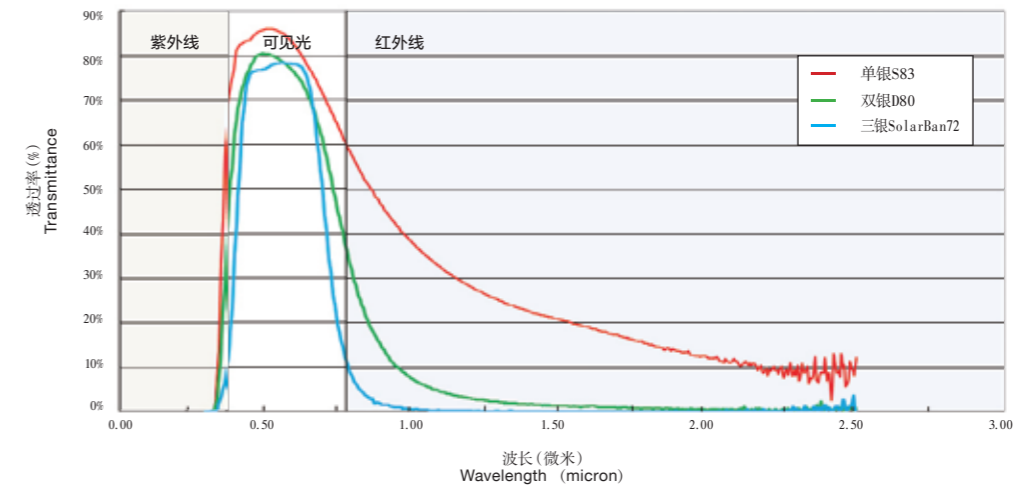
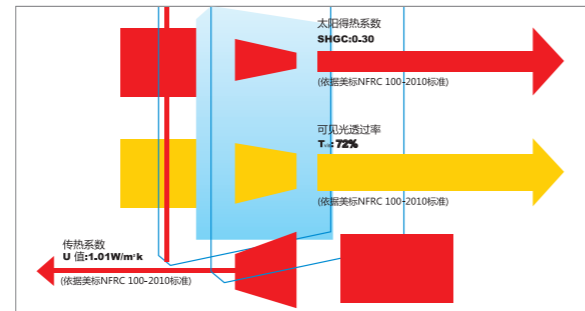
产品结构 Product Configuration	反射色 Colour	可见光 Visible light		太阳光 Sunlight		美标 NFRC 2010				欧标 EN673			国标 JGJ151					
		透射比 Tvis%	反射比 Rvis%		透过 Tsol%	反射 Rsol%	U值 U-value (W/m².K)				遮阳系数 SC	得热系数 SHGC	光阳比 LSG	U值 U-value (W/m².K)		K值 K-value (W/m².K)		遮阳系数 SC
			室外 Out	室内 In			空气 Air		氩气 Argon					空气 Air	氩气 Argon	空气 Air	氩气 Argon	
							冬季 Winter	夏季 Summer	冬季 Winter	夏季 Summer								
6Solarban 72+12A+6UC	灰 Grey	72	15	15	29	54	1.62	1.56	1.34	1.23	0.36	0.31	2.32	1.55	1.22	1.63	1.36	0.39
6Solarban 72+16A+6UC	灰 Grey	72	15	15	29	54	1.67	1.29	1.40	1.01	0.35	0.31	2.32	1.31	1.08	1.68	1.42	0.39
6Solarban 70XLVT+12A+6C	灰 Grey	68	15	15	26	40	1.62	1.56	1.34	1.23	0.34	0.30	2.27	1.55	1.22	1.63	1.36	0.37
6Solarban 70XLVT+16A+6C	灰 Grey	68	15	15	26	40	1.67	1.29	1.40	1.01	0.34	0.30	2.27	1.31	1.08	1.68	1.42	0.37

- 说明: 1. 产品数据依据美标NFRC 2010及欧标EN673标准、国标JGJ151标准条件计算获得。
 2. 产品数据仅供参考, 最终产品参数以金晶针对具体工程提供的参数为准。
 3. 光阳比计算公式为可见光透射比与太阳得热系数的比值
 4. 结构中氩气均为10%空气+90%氩气



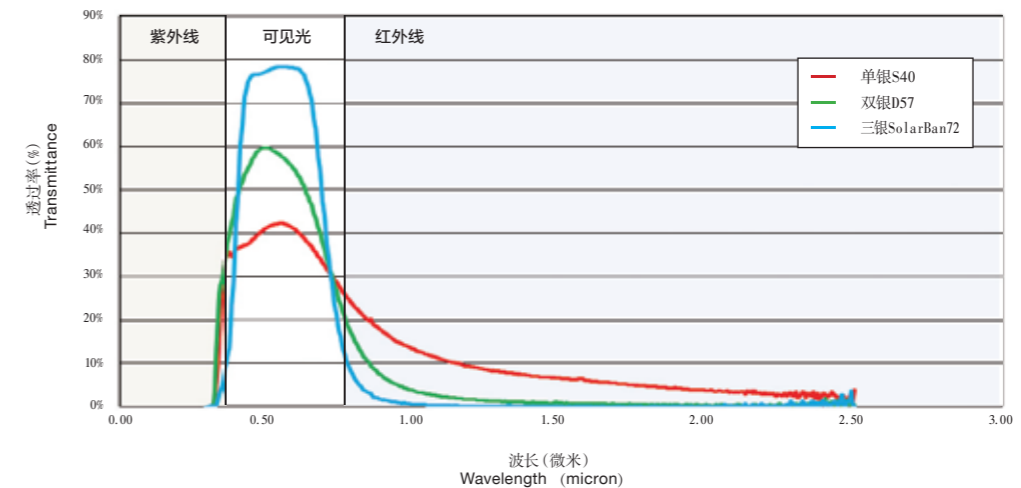
6Solarban 72+16Ar +6UC

关键指标:
 可见光透射率 Tvis 72%
 传热系数 U Value 1.01W/m².K



图中是三款可见光透射率类似的单银、双银、三银Low-E太阳光谱透过曲线, 图中竖线中间是可见光(380-780nm)区域, 三款Low-E透光率相近。竖线右侧是红外线(780-2500nm)区域, 由于热量绝大部分都是由红外线带入, 因而该区域曲线下包容面积大小反映太阳直接透过玻璃的热能。单银Low-E包容的面积最大, 双银Low-E次之, 三银Low-E包容的面积最小, 因此透过的太阳热能最少, 隔热性能最好。

In the graph, these are three solar spectral transmittance curve of triple, double, single silver Low-E glass with similar visible light transmittance. The middle area of the vertical line is the area of visible light (380-780 nm), and the visible light transmittance of the three kinds of Low-e is similar. The right area of the vertical line is infrared ray area (780-2500 nm). Since most of the heat is carried by infrared rays, the area under the curve reflects the heat energy which the solar energy goes directly through the glass. The single silver Low-e contains the largest area, double silver Low-E takes second place, and the triple silver Low-e takes the smallest area which means the least heat goes through the glass, and best thermal insulation performance.



图中是三款太阳能得热系数 (SHGC) 值类似的单银、双银、三银Low-E玻璃太阳光谱透过曲线。SHGC值相同意味着380-2500nm波长下这三条曲线包容的面积相当, 但曲线的高低分布形状明显不同, 三银Low-E在红外线区域包含的面积最小, 因此透过的太阳能热是最少。由此可见SHGC值相同的三银Low-E对红外热辐射屏蔽能力远远大于双银、单银Low-E, 夏天室内舒适性极大提高。

In the graph, these are three solar spectral transmittance curve of triple, double, single silver Low-E glass with similar SHGC value within 380-2500 nm. The SHGC value is similar, which means the contained area of the three coated glass is similar, but the distribution shape of the curve is obviously different, and the triple silver Low-e takes the smallest area which means the least heat goes through the glass. With similar SHGC value, the triple silver Low-e shielding capability of infrared thermal radiation is much greater than that of double silver and single silver Low-e glass, which greatly improved the indoor comfort in summer.

超白双银Low-E玻璃 Ultra Clear Double Silver Low-E Glass

性能特点 | Characteristics

1. 近零自爆, 超高层建筑安全选择;
2. 高保真色彩, 还原建造师设计创想;
3. 钻石般璀璨, 水晶般剔透;

1. Extremely high safety performance, near zero self-explosion, first choice for ultra high buildings.
2. Excellent color rendering performance, more vividly and authentically exhibit the original design of the architects.
3. Higher transparency, beautiful view Diamond splendid, crystal clear.

应用区域: 夏热冬冷及夏热冬暖地区

推荐应用: 超高层建筑及全玻璃幕墙建筑

Applied region: tropical & sub-tropical areas

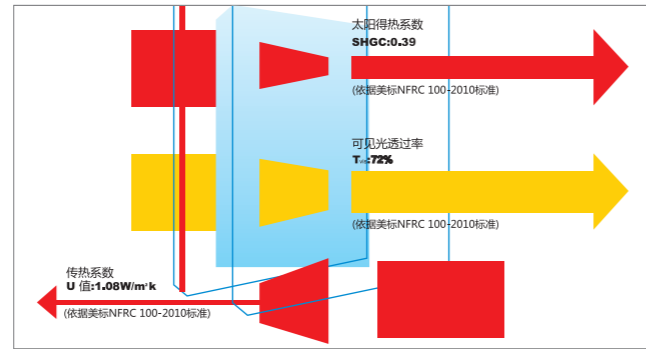
Recommended application: super high-rise buildings and all-glass façade buildings

60ptisolar UD80+16Ar+6UC

关键指标:

可见光透过率 Tvis 72%

传热系数 U Value 1.08W/m².K



性能参数表 | Performance Data

产品结构 Product Configuration	反射色 Colour	可见光 Visible light				太阳光 Sunlight		美标 NFRC 2010						欧标 EN673		国标 JGJ151		
		透过率 Tvis%	反射比 Rvis%		透过率 Tsol%	反射比 Rsol%	U 值 U-value (W/m ² .K)				遮阳系数 SC	得热系数 SH GC	光 阳 比 LSG	U 值 U-value (W/m ² .K)		K 值 K-value (W/m ² .K)		遮阳系数 SC
			室外 Out	室内 In			空气 Air		氩气 Argon					空气 Air	氩气 Argon	空气 Air	氩气 Argon	
							冬季 Winter	夏季 Summer	冬季 Winter	夏季 Summer								
6Optisolar UD80+12A+6UC	中性 Neural	72	13	14	38	41	1.66	1.60	1.38	1.29	0.45	0.39	1.85	1.60	1.27	1.66	1.39	0.48
6Optisolar UD80+16A+6UC	中性 Neural	72	13	14	38	41	1.70	1.34	1.44	1.08	0.45	0.39	1.85	1.35	1.14	1.71	1.45	0.48
6Optisolar UD70+12A+6UC	浅蓝灰 Powder Blue	64	16	18	35	35	1.72	1.69	1.45	1.39	0.43	0.38	1.68	1.67	1.36	1.73	1.46	0.45
6Optisolar UD70+16A+6UC	浅蓝灰 Powder Blue	64	16	18	35	35	1.76	1.44	1.51	1.19	0.43	0.37	1.73	1.44	1.23	1.77	1.52	0.45
6Optisolar UD57+12A+6UC	浅灰色 Light Grey	53	15	14	26	42	1.69	1.64	1.41	1.34	0.34	0.29	1.83	1.63	1.31	1.69	1.43	0.36
6Optisolar UD57+16A+6UC	浅灰色 Light Grey	53	15	14	26	42	1.73	1.39	1.47	1.13	0.33	0.29	1.89	1.39	1.18	1.74	1.49	0.36
6Optisolar UD49+12A+6UC	蓝灰 Bluish Grey	47	15	13	23	44	1.69	1.64	1.41	1.34	0.30	0.26	1.81	1.63	1.31	1.69	1.43	0.33
6Optisolar UD49+16A+6UC	蓝灰 Bluish Grey	47	15	13	23	44	1.73	1.39	1.47	1.13	0.30	0.26	1.81	1.39	1.18	1.74	1.49	0.33
6Optisolar UD45+12A+6UC	银灰 Silver grey	41	26	15	18	52	1.68	1.63	1.40	1.32	0.24	0.21	1.95	1.62	1.30	1.68	1.42	0.26
6Optisolar UD45+16A+6UC	银灰 Silver grey	41	26	15	18	52	1.72	1.38	1.46	1.11	0.24	0.21	1.95	1.38	1.17	1.73	1.48	0.26

说明: 1、产品数据依据美标NFRC 2010及欧标EN673标准、国标JGJ 151标准条件计算获得。

2、产品数据仅供参考, 最终产品参数以金晶针对具体工程提供的参数为准。

3、光阳比计算公式为可见光透射比与太阳得热系数的比值

4、结构中氩气均为10%空气+90%氩气



“节能之星”系列Low-E玻璃“Energy Saving Star” Series Low-E Glass

性能特点 | Characteristics

- 1、高透过。中空可见光透过率高达82%；
- 2、低U值。单Low-E 中空U值最低达1.16 W/m².K；
- 3、自然质感，纯净天然，一览无余；

1. High visible light transmittance, and the visible light transmittance of IGU is 82%.
2. Lower U value, and the lowest U value of IGU can be 1.16 W/m².K.
3. Natural lighting and bright quality with a crystal view.

应用区域：严寒及寒冷地区

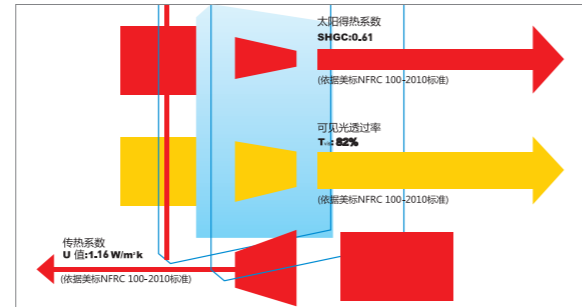
推荐应用：高端门窗、低能耗被动式建筑

Applied area: freezing and cold areas

Recommended application: high-end windows and doors, low energy passive buildings

6节能之星1.16UC+16Ar+6UC

关键指标：
可见光透过率 Tvis 82%
传热系数 U Value 1.16 W/m².K



性能参数表 | Performance Data

产品结构 Product Configuration	反射色 Colour	可见光 Visible light			太阳光 Sunlight		美标 NFRC 2010						欧标 EN673		国标 JGJ151			
		透过率 Tvis%	反射比 Rvis%		透过 Tsol%	反射 Rsol%	U 值 U-value (W/m ² .K)				遮阳 系数 SC	得热 系数 SHGC	光阳 比 LSG	U 值 U-value (W/m ² .K)		K 值 K-value (W/m ² .K)		
			室外 Out	室内 In			空气 Air		氩气 Argon					空气 Air	氩气 Argon	空气 Air	氩气 Argon	
							冬季 Winter	夏季 Summer	冬季 Winter	夏季 Summer								
6 节能之星 1.16UC+12A+6UC	中性 Neutral	82	14	14	60	30	1.73	1.70	1.46	1.40	0.71	0.61	1.34	1.67	1.36	1.72	1.46	0.73
6 节能之星 1.16UC+16A+6UC	中性 Neutral	82	14	14	60	30	1.77	1.45	1.51	1.16	0.71	0.61	1.34	1.43	1.22	1.77	1.52	0.73
6 节能之星 1.16+12A+6C	中性 Neutral	79	13	13	50	24	1.72	1.69	1.45	1.39	0.65	0.57	1.39	1.67	1.36	1.73	1.46	0.68
6 节能之星 1.16+16A+6C	中性 Neutral	79	13	13	50	24	1.76	1.44	1.51	1.16	0.65	0.57	1.39	1.44	1.23	1.77	1.52	0.68
6Optilite US83+12A+6UC	中性 Neutral	78	12	13	56	24	1.74	1.71	1.47	1.42	0.67	0.58	1.34	1.70	1.39	1.74	1.48	0.70
6Optilite US83+16A+6UC	中性 Neutral	78	12	13	56	24	1.78	1.47	1.53	1.22	0.67	0.58	1.34	1.46	1.25	1.79	1.54	0.70
6Optilite S83+12A+6C	中性 Neutral	74	12	13	46	20	1.75	1.72	1.48	1.43	0.61	0.53	1.40	1.71	1.40	1.75	1.49	0.64
6Optilite S83+16A+6C	中性 Neutral	74	12	13	46	20	1.78	1.48	1.54	1.23	0.61	0.53	1.40	1.47	1.26	1.79	1.55	0.64

说明：1、产品数据依据美标NFRC 2010及欧标EN673标准、国标JGJ 151标准条件计算获得。
2、产品数据仅供参考，最终产品参数以金晶针对具体工程提供的参数为准。
3、光阳比计算公式为可见光透过率与太阳得热系数的比值
4、结构中氩气均为10%空气+90%氩气

超大板Low-E玻璃 Jumbo Size Low-e Glass

产品优势 | Advantages

- 1、超透采光，超大空间，视野开阔；
- 2、最大尺寸12000*3300mm；厚度3-19mm，满足各种选择；
- 3、浮法原片--Low-E镀膜--深加工三位一体产业链协同，快速供货，保障工期；

1. Super transmittance of lighting, oversize space with wide view.
2. Maximum size:12000mm*3300mm;Thickness range : 3mm-19mm.
3. Collaborative products chain from float glass, Low-E coated glass and processed glass, fast delivery and guarantee project period.



应用领域：裙楼、大堂、商业综合体等

Applied region: podium building, lobby, commercial building and so on.



美国德克萨斯州甲骨文办公楼
Oracle office, Texas, USA
(超白三银Low-E, 高度9.4米)

被动式建筑用Low-E玻璃 Low-E Glass Specialized for Passive House

产品介绍 | Brief Introduction

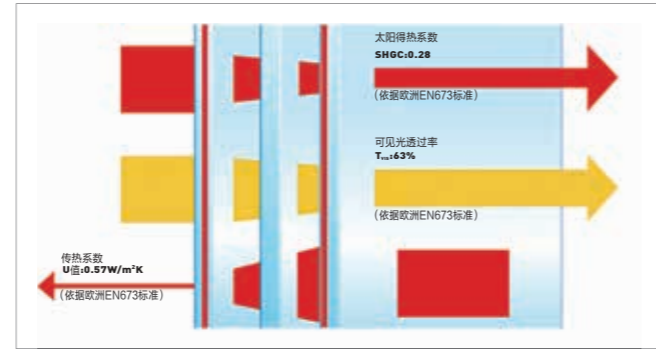
被动式节能屋(德语: Passivhaus)也称被动式房屋,是基于被动式设计而建造的节能建筑物。被动式节能屋不需要主动加热,它基本上是靠被动收集来的热量来使房屋本身保持一个舒适的温度。使用太阳、人体、家电及热回收装置等带来的热能,不需要主动热源的供给。

金晶高性能被动式建筑专用Low-E玻璃具有卓越的产品性能,在保证充足可见光透过率的同时,又具有极低的传热系数,是被动式建筑的理想选择。

Passive house (Passivhaus in Germany) is a kind of passively designed, energy-saving construction. It doesn't need active heating, but passively absorbed heat to keep a comfortable indoor temperature. The house uses heat recycling device to collect energy from the sun, human body, home appliances to keep the room warm so it doesn't need active heat supply. Jinjing High Performance Low-E glass specialized for passive house has superior product performance, and it can guarantee high visible light transmittance while has a extremely low heat transfer coefficient. It is the first choice for energy-saving passive house

5Solarban 70XL+18Ar+5C+18Ar+5Optilite S1.16

关键指标:
传热系数 U Value 0.57W/m².K



性能参数表 | Performance Data

产品结构 Product Configuration	可见光透射比 Tvis%	U 值 U-value (W/m ² .K)			遮阳系数 SC	得热系数 SHGC	光阳比 LSG
		美标 NFRC2010		欧标 EN673			
		冬季夜晚	夏季白天	冬季夜晚			
		Winter	Summer	Winter			
5Optilite S1.16+12Ar+5C+12Ar+5Optilite S1.16	73	0.78	0.82	0.79	0.57	0.50	1.46
5Optilite S1.16+16Ar+5C+16Ar+5Optilite S1.16	73	0.75	0.68	0.65	0.57	0.50	1.46
5Optilite S1.16+18Ar+5C+18Ar+5Optilite S1.16	73	0.77	0.64	0.60	0.58	0.50	1.46
5Optisolar D80+12Ar+5C+12Ar+5Optilite S1.16	64	0.77	0.81	0.77	0.40	0.35	1.83
5Optisolar D80+16Ar+5C+16Ar+5Optilite S1.16	64	0.74	0.67	0.64	0.40	0.35	1.83
5Optisolar D80+18Ar+5C+18Ar+5Optilite S1.16	64	0.76	0.63	0.59	0.40	0.35	1.83
5 Solarban 70XL+12Ar+5C+12Ar+5Optilite S1.16	63	0.75	0.78	0.75	0.32	0.28	2.25
5 Solarban 70XL+16Ar+5C+16Ar+5Optilite S1.16	63	0.73	0.64	0.62	0.32	0.28	2.25
5 Solarban 70XL +18Ar+5C+18Ar+5Optilite S1.16	63	0.74	0.59	0.57	0.32	0.28	2.25

说明: 1、产品数据依据美标NFRC 100-2010及欧标EN673标准条件计算获得。
2、产品数据仅供参考,最终产品参数以金晶针对具体工程提供的参数为准。
3、光阳比计算公式为可见光透射比与太阳得热系数的比值。

项目案例 Projects



1、龙湖高碑店列车新城
Longhu Gaobeidian Train New Town

2、南通三建研发楼
Nantong Third Construction R & D Building

3、株洲市民中心
Zhuzhou Civic Center

4、青岛中德生态园被动房技术体验中心
Qingdao Sino-German ecological park passive house technology experience center



颜色玻璃 Tinted Glass

产品介绍 | Brief Introduction

颜色玻璃又称为本体着色玻璃，具有紫外线透过率低、遮阳效果好的特点，由于其颜色的绚丽多彩，又具有很好的装饰效果。因此广泛应用于建筑内外装、制镜、家具、卫浴等领域。经过自主研发，目前金晶已生产了金茶、灰茶、金晶灰、欧洲灰、水晶灰、福特蓝、F绿、粉玻等颜色系列及阳光控制膜玻璃(反射玻璃)，厚度3-12mm,规格从920*1016mm到3660*3300mm。

Tinted glass, also called body colored glass, has characteristics of low UV transmittance, good shading effect. Because of its gorgeous color and good decorative effect, it is widely use in interior and exterior decoration of Buildings, mirror, Furniture, Bathroom and etc. By independent innovation, our company has produced Golden Bronze, Euro Bronze, Jinjing Grey, Euro Grey, Crystal Grey, Ford Blue, F Green, Pink glass and other series, together with the corresponding solar control coating glass(reflective glass). Thickness rang from 3mm to 12mm, size rang from 920*1016 to 3660*3300.



技术参数 | Technical Parameters

厚度 Thickness (5mm)	可见光透射率 Visible Light Transmittance	可见光反射率 Visible Light Reflectivity	太阳光透射率 Solar Transmittance	太阳光反射率 Solar Reflectivity
金茶 Golden Bronze	46	5	47	5
灰茶 Euro Bronze	49	5	50	5
金晶灰 Jinjin Grey	46	5	46	5
欧洲灰 Euro Grey	51	5	53	6
水晶灰 Crystal Grey	68	6	60	6
F 绿 F Green	77	7	54	5
福特蓝 Ford Blue	66	6	50	5



优质浮法玻璃 High Quality Float Glass

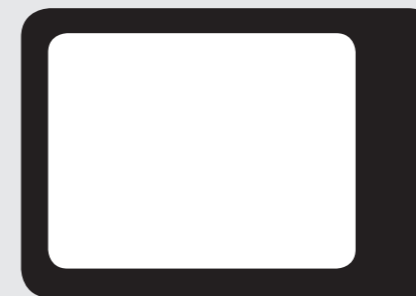
厚度范围: 1.6-6mm
Thickness Range: 1.6-6mm

尺寸: 可根据客户定尺生产;
Size: It can be produced according to customer's requirement

应用领域: 汽车挡风、工业品、电子、高端制镜等领域。
Application Area: Automotive Windscreen, Industry Product, Electrical Panel, High-end Mirror and etc.



光学玻璃
Optics Glass



微波炉面板
Microwave Ovens Panel



汽车玻璃
Automotive Glass



建筑内装
Interior Construction



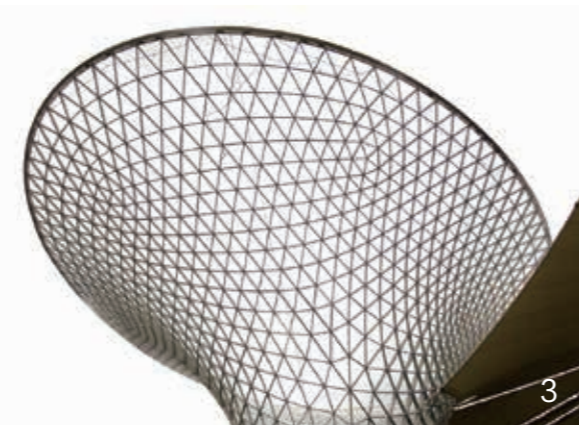
电器面板
Electrical Panel

迪拜哈利法塔
Dubai Khalifa Tata
(828米)

上海中心
Shanghai Tower
(632米)

深圳平安金融中心
Shenzhen Ping An Finance Center
(592.5米)

中国尊
China Zun
(528米)



1、亚投行总部大楼 Headquarters Building of AIIB
2、国家体育馆(鸟巢) National Stadium (Bird's Nest)
3、世博轴阳光谷 Sunny Valley of Shanghai World Expo

1、北京大兴国际机场 National Theatre (Interior decoration)
2、香港太古坊 Hong kong Taikoo Place
3、上海苹果专卖店 Shanghai Apple Store



1

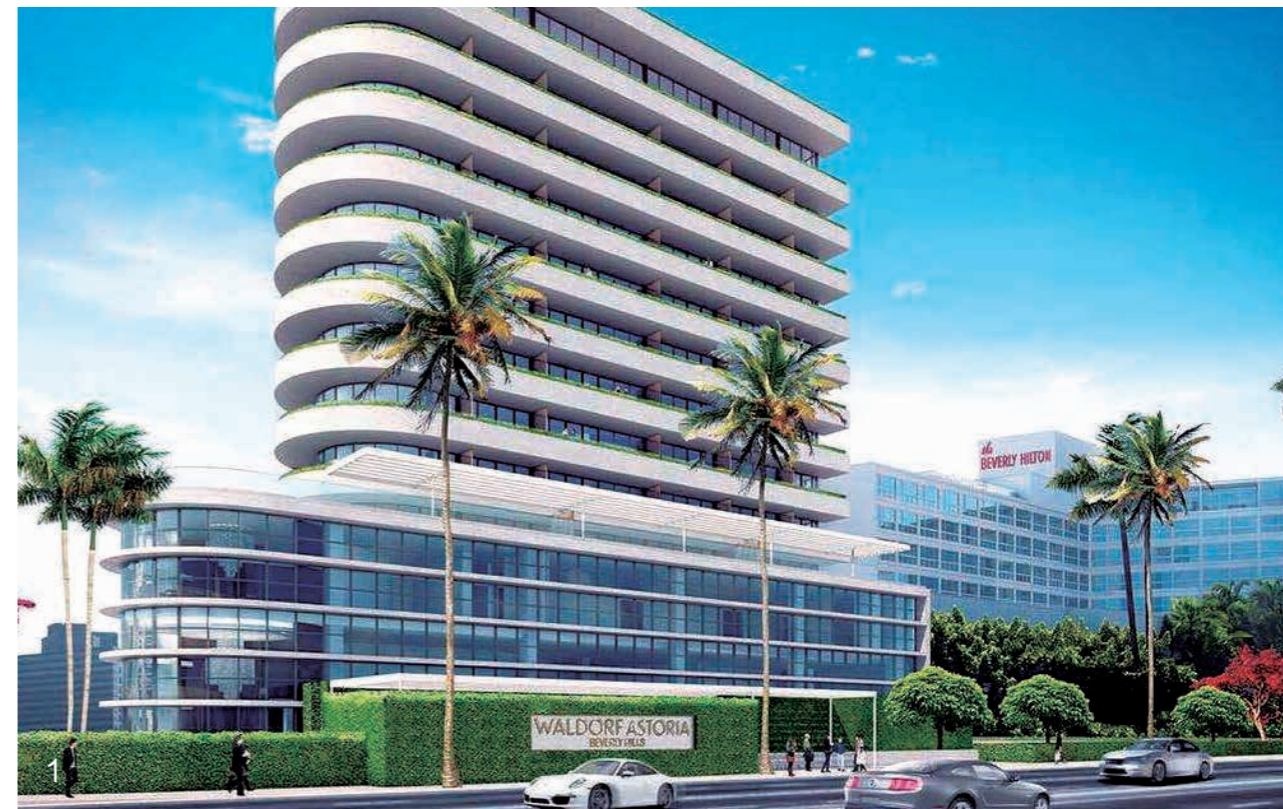


2



3

1、美国德克萨斯州甲骨文办公楼 Oracle Office, Texas, USA (超白三银Low-E)
 2、York & George (6mm双银Low-E)
 3、澳洲南岸中心 Southbank Central Apartments of Australia (6mm双银Low-E)



2



3

1、美国华尔道夫酒店 Wardorf Astoria United States (6/10mm超白三银Low-E)
 2、新加坡 Crown Plaza Extension Singapo (8mm超白三银Low-E)
 3、新加坡樟宜机场 Singapore Changi Airport (三银Low-E)



1



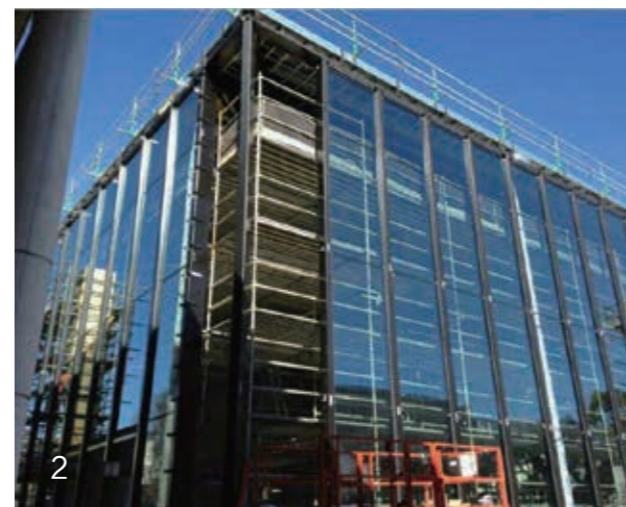
2

1、澳洲会展中心 ICC Hotel of Australia
2、马来西亚 The Exchange 106 of Malaysia (8mm超白双银Low-E)



2

3



1、日本日光东照宫 Japan Nikko Toshogu Shrine (12mm“节能之星”系列Low-E)
2、澳洲国防大学 Australia National Defense University (12mm超白双银Low-E)
3、韩国韩泰轮胎中央研发中心 Korea Hankook Research and Development Center (超白双银Low-E)



1、武汉光谷新世界 Wuhan Guanggu New World Center (10mm双银Low-E)
 2、北京奥林匹克瞭望塔 Watchtower of Beijing Olympic Park
 3、西安迈科中心 Xi'an Maikang Business Center (10mm超白双银Low-E)

1、苏州罗氏制药办公楼
 Suzhou Roche Pharmaceutical Office Building
 (6mm超白三银/水晶灰三银Low-E)
 2、上海新世界名品城
 Shanghai New World Famous Products City
 (8mm超白双银Low-E)
 3、北京 中国移动信息港二期
 Beijing China Mobile Information
 Port Phase II
 (8mm超白双银/6mm双银Low-E)
 4、深圳万科云城
 Shenzhen Vanke Yun City
 (6mm双银Low-E)



1



2

- 1、济南奥体中心 Jinan Olympic Sports Center
- 2、山东省建设银行大楼 Shandong Construction Bank Building (10mm超白双银Low-E)
- 3、济南西站 Jinan West Railway Station (6mm Low-E)



3



1

- 1、华润 青岛万象城
China Resources Qingdao Vientiane City
- 2、青岛中信大酒店
Qingdao Citic Hotel
(6mm双银Low-E)
- 3、济南汉峪金谷
Jinan Hanyu Golden Valley
(6mm“节能之星”系列Low-E)



2

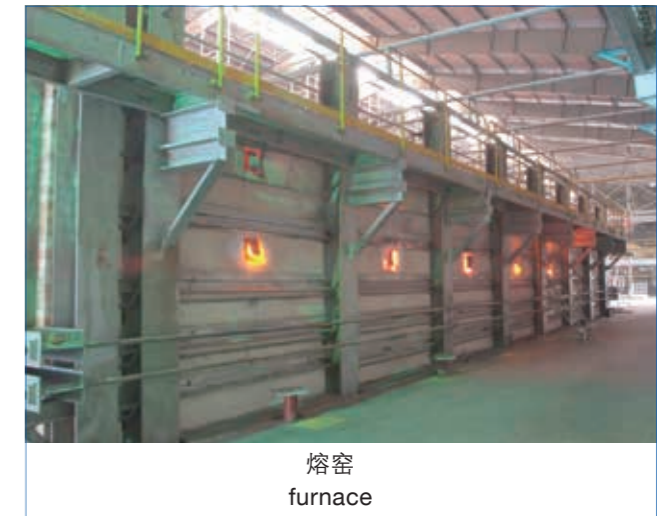


3

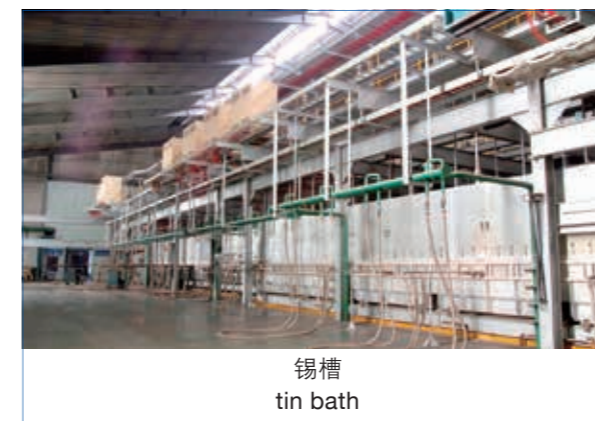
项目名称 Projects	所在地 Location	工程类型 Type
北京泰康大厦 Beijing Taikang Building	北京 Beijing	办公 Office
北京丽泽SOHO Beijing lize SOHO	北京 Beijing	办公 Office
北京银泰中心 Beijing Yintai Center	北京 Beijing	办公 Office
国家游泳馆(水立方) Nation natatorium Water Cube	北京 Beijing	场馆 Stadium
北京通州万达广场 Beijing Tongzhou Wanda Plaza	北京 Beijing	商业 Commercial Space
国家开发银行 China Development Bank	北京 Beijing	银行 Bank
天津滨海机场交通中心 Tianjin Binhai Airport Transportation Center	天津 Tianjin	机场 Airport
世博会中国馆 China Pavilion of Shanghai World Expo	上海 Shanghai	场馆 Stadium
上海浦东机场T3航站楼 Shanghai Pudong Airport Terminal 3	上海 Shanghai	机场 Airport
上海环球金融中心 Shanghai World Financial Center	上海 Shanghai	办公 Office
上海久光百货二期 Shanghai Jiuguang department store phase II	上海 Shanghai	商业 Commercial Space
广州西塔 Guangzhou West Tower	广州 Guangzhou	办公 Office
广州东塔 Guangzhou East Tower	广州 Guangzhou	办公 Office
南京金融城二期西区 West District of Nanjing City Phase II	南京 Nanjing	办公 Office
南京华新城二期 Nanjing hua xin cheng Phase II	南京 Nanjing	商业 Commercial Space
武汉中建光谷之星 Wuhan Zhongjian Optics Valley Star	武汉 Wuhan	商业 Commercial Space
菲律宾CEBU机场 CEBU Airport in the Philippines	菲律宾 Philippines	机场 Airport
新世纪广场酒店 New century plaza hotel	美国 America	酒店 Hotel
美国苹果公司总部大楼 Apple headquarters building	美国 America	办公 Office



原料外景图
outside scene of batch plant



熔窑
furnace



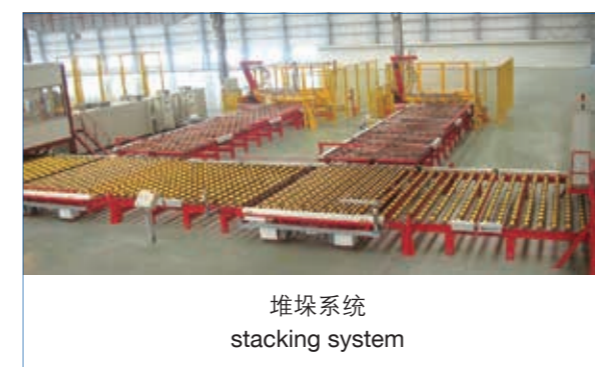
锡槽
tin bath



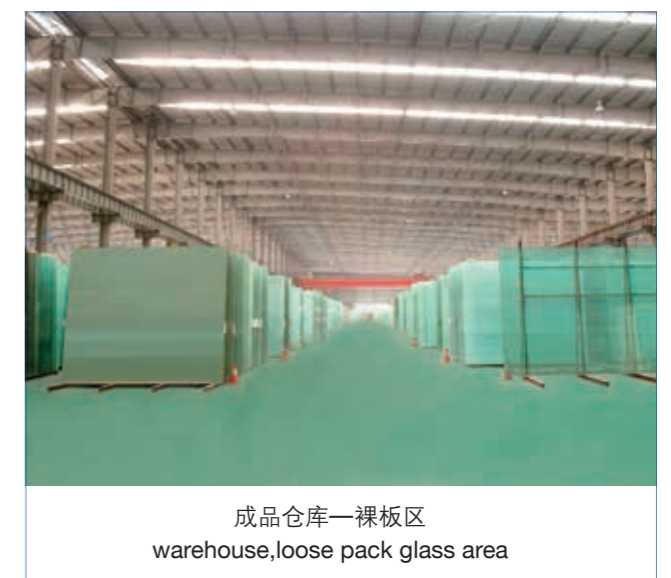
退火窑
lehr



切割系统
cutting line



堆垛系统
stacking system



成品仓库—裸板区
warehouse, loose pack glass area



德国格林策巴赫上下片系统
Loading and unloading system of Grenzebach Germany



德国莱宝光学Low-E镀膜生产线
(年产能1000万平方米)
Most advanced Low-E coating line of Leybold Germany
(Annual capacity of 10 million square meters)



德国本特勒清洗机
Washing machine of Benteler Germany



芬兰格拉司通高性能三银钢化炉及iLook品质控制系统
Triple silver Low-E glass tempering furnace
and iLook quality control system of Glaston Finland



夹胶玻璃无尘合片室
Clean Room For Laminated Glass



奥地利李赛克全自动中空玻璃生产线
Automotive insulating glass production line of
LISEC Austria