

GLASS
ORIENT
From China, For The World



FROM CHINA, FOR THE WORLD
源自中华 服务天下

ORIENT INDUSTRY GROUP CO., LIMITED

From China, For The World

Company Synopsis

源自中华 服务天下



总裁寄语

生命就有使命。

奥林德公司自成立以来，始终秉承“诚信、专业、共赢”的经营理念，积极进取、努力创新，稳健开拓国际市场。

经过十八年的积淀，我们的产品已出口到了全球106个国家和地区，ORIENT--FROM CHINA, FOR THE WORLD 的品牌形象已经纵贯全球。

未来道路上，我们绝不止步！

成就面前不保守，困难面前不妥协，目标面前不懈怠。

背倚巍巍青山，面向茫茫碧海。胸怀天下的奥林德人正携着信心与使命，劈波斩浪、扬帆起航！


Mr. Henry Wang

President's Oration

Born, not alone; with Mission accompany.

And Orient is no exception.

Holding the management principle of "Integrity, Profession, Win-win", the company achieves great progress while innovating, for a further step into international market.

18 years' experience spread over Orient products to 106 countries and regions. Hence, ORIENT--FROM CHINA, FOR THE WORLD, the brand image is known all over the world.

Never will we stop in the future.

No Conservative, as Achievement we have got;

No Compromise, as we are not afraid of any difficulties;

No Letup, as we have goals, lighting our road;

Blessing as we are, Lofty Green Mountains as shield, Vast Blue Seas as wing.

Orient shows the world its passion and faith! Here we are, to accomplish our Mission!

From China, For The World



2011年青岛奥林德奖学金颁奖仪式
2011 Orient Scholarship Award Ceremony



2011上海玻璃展
China Glass Exhibition, Shanghai 2011



2012年青岛奥林德奖学金颁奖仪式 2012 Orient Scholarship Award Ceremony



丰富多彩的企业文化生活
Rich and Colorful Corporate Cultural Life





Orient Glass depends on the advanced technology and equipments to improve the glass product quality, and have made an outstanding achievement in high quality float glass field. Our company produces tinted float glass, automobile glass, mirror glass, coating glass etc, and has received much praise from customers all over the world.

Applications ♦ Display panel ♦ Mirror ♦ Optics facility panel
♦ Automobile glass ♦ Household appliances panel ♦ Building

Features ♦ Good quality ♦ Predominant optics performance
♦ Complete specification ♦ Easy to process (tempering, coating, mirror etc)

Technical Parameters

| Thickness | Visible Light Transmittance | Visible Light Reflectivity | Solar Transmittance | Solar Reflectivity | Visible-Infrared Transmittance | Ultraviolet Transmittance |
|-----------|-----------------------------|----------------------------|---------------------|--------------------|--------------------------------|---------------------------|
| 2mm | 90.69 | 8.3 | 87.22 | 7.9 | 84.15 | 83.44 |
| 2.5mm | 90.47 | 8.3 | 86.14 | 7.8 | 82.31 | 81.97 |
| 2.8mm | 90.34 | 8.3 | 85.51 | 7.7 | 81.22 | 81.15 |
| 3mm | 90.25 | 8.3 | 85.09 | 7.7 | 80.51 | 80.62 |
| 3.2mm | 90.17 | 8.3 | 84.67 | 7.7 | 79.80 | 80.11 |
| 4mm | 89.82 | 8.3 | 83.04 | 7.6 | 77.03 | 78.18 |
| 5mm | 89.39 | 8.2 | 81.07 | 7.4 | 73.71 | 76.02 |
| 6mm | 88.96 | 8.2 | 79.17 | 7.3 | 70.54 | 74.08 |
| 8mm | 88.31 | 8.1 | 76.51 | 7.1 | 66.14 | 70.60 |
| 10mm | 87.47 | 8.1 | 73.61 | 6.9 | 61.56 | 67.15 |
| 12mm | 86.25 | 8.0 | 68.53 | 6.6 | 53.09 | 66.23 |

High Quality Float Glass
From China, For The World
源自中华 服务天下

Specifications

| Thickness | 2mm, 2.5mm, 2.8mm, 3mm, 3.2mm | 4mm, 5mm 6mm, 8mm, 10mm, 12mm |
|---------------|-------------------------------|-------------------------------------|
| Specification | 1830*2134mm 1830*2440mm | 1830*2134mm 1830*2440mm 1650*2134mm |
| | 1650*2134mm 1650*2440mm | 1650*2440mm 3660*2134mm 3660*2440mm |
| | 1650*1830mm 1500*2000mm | 3300*2134mm 3300*2440mm 3050*2134mm |
| | 920*1016mm | 3300*5000mm 3300*6500mm 3300*6000mm |

Physical/Mechanical Properties

| | |
|--|-------------------------|
| Density | 2.5g/cm ³ |
| Linear coefficient of expansion:25-300℃ | 8.9×10 ⁻⁶ /℃ |
| Softening point | 723℃ |
| Annealing point | 544℃ |
| Strain point | 504℃ |
| (-18-66℃) Hemispherical emissivity | 0.84 |
| Specific heat (0-100℃) | 0.205 |
| Thermal conductivity (49℃) (watt/m2/k) | 36.9 |
| Modulus of elasticity (Young' s modulus) | 73.1Gpa |
| Modulus of rupture (tensile strength-ultimate) | 41.4Mpa |
| Knoop hardness | 470kgf/m ² |

From China, For The World

Tinted Glass

源自中华 服务天下

Tinted glass is also called bodied tinted glass, it has many characters, for example, low UV transmittance, and good shading effect. Because of the floweriness color, it can have a good decoration effect, and widely been used for building, mirror, furniture, shower bath etc. Our company produces Golden Bronze, Euro Bronze, Dark Blue, Ford Blue, Ocean Blue, Euro Grey, Dark Grey, French Green, Dark Green by independent innovation.

Thickness: 3-12mm;

Min size: 920*1016mm;

Max size: 2440*3300mm.

Orient tinted glass have received much praise from customers all over the world.

Features

- ◆ Perfect color series
- ◆ Predominant product quality
- ◆ Color consistency
- ◆ Complete specification

Thickness: 3-12mm

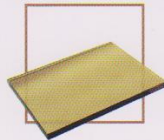
Min size: 920*1016mm

Max size: 2440*3300mm

- ◆ Continuous and stable supplying

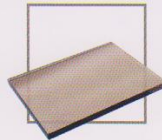


From China, For The World



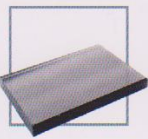
Golden Bronze

Applications:
Mirror, furniture, building etc
金壁辉煌的气势, 在蕴含柔美的感觉中充分感受金色的富足



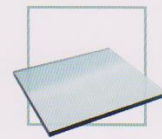
Euro Bronze

Applications:
Mirror, Furniture, building etc
朦胧的灰色交织着淡淡的茶色, 阵阵茶香扑面而来



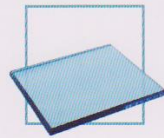
Euro Grey

Applications:
Shower bath, Furniture, building coating Etc
淡淡的黑色与忧郁的灰色在这里完美结合, 让人心旷神怡



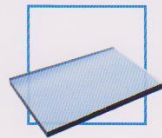
French Green

Applications:
Furniture, building, auto glass etc
忧郁的绿色, 在典雅中沉淀出一份宁静



Ocean Blue

Applications:
Doors, windows, coating, shower bath, furniture etc
来自大海永恒而纯粹的神韵, 在喧嚣中阻挡住一切的世俗



Dark Blue

Applications: mirror, shower bath, furniture, building, coating etc
大自然中的神秘在这里体现, 时尚的气息无处不在

Optical Parameters

| Thickness (5mm) | Visible Light Transmittance | Visible Light Reflectivity | Solar Transmittance | Solar Reflectivity | Visible-Infrared Transmittance | Ultraviolet Transmittance |
|-----------------|-----------------------------|----------------------------|---------------------|--------------------|--------------------------------|---------------------------|
| Golden Bronze | 45.85 | 5.4 | 47.27 | 5.3 | 50.07 | 13.17 |
| Euro Bronze | 49.08 | 5.5 | 50.19 | 5.4 | 50.93 | 25.12 |
| Dark Blue | 46.36 | 5.4 | 46.25 | 5.3 | 43.27 | 34.06 |
| Euro Grey | 49.65 | 5.5 | 46.76 | 5.3 | 42.34 | 32.85 |
| F Green | 77.45 | 7.3 | 54.15 | 5.9 | 35.45 | 49.07 |
| Ocean Blue | 66.87 | 6.6 | 50.47 | 5.8 | 45.97 | 45.33 |

From China, For The World

Reflective Glass

源自中华 服务天下



From China, For The World

Reflective glass is produced by coating one or more layers of metal or compound thin film on float glass by way of vacuum magnetron sputtering. The major function of the coating is to control the reflection, transmission and absorption of direct radiation at desirable ratio, and to produce the needed reflective color. Reflective glass has the following features:

Features

- ◆ Effectively limit direct solar radiation transmission.
- ◆ Various reflective colors and excellent decoration effect.
- ◆ Excellent sight shielding effect on the indoor objects and structures.
- ◆ Proper visible light transmittance and reflectance.
- ◆ Lessen transmission of ultraviolet.

Thickness

- ◆ 4mm, 5mm, 6mm.

Colour

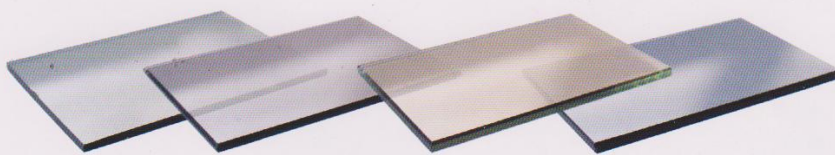
- ◆ Clear, bronze, ocean blue, dark blue, ford blue, french green, dark green, euro grey, dark grey, pink, yellow, golden.

Max size

- ◆ 3300x2440mm

Normal size

- ◆ 3300x2140mm, 2000x1500mm, 2134x1372mm, 2134x1524mm, 2134x1676mm, 2134x1830mm, 3050x2134mm, 3210x2140mm, 3050x2440mm.



From China, For The World

Ultra Clear Glass

源自中华 服务天下

Ultra clear glass is low iron glass with high light transmittance. It is high grade, multifunctional, new type glass and generally its light transmittance is higher than 91%. It is crystal clear and crowned as "crystal prince" of glass family.

With its crystal clear appearance, Orient ultra clear glass has become a highlight in world architectural industry. It not only brings benefit on energy saving and environmental protection, but also has modern fashionable style, meanwhile, it can arouse the designers' creation and inspiration.

Optical Parameters

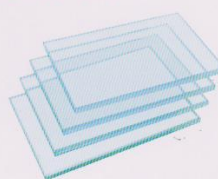
| Thickness | Visible Light Transmittance | Visible Light Reflectivity | Solar Radiant coefficient | | | | Shading coefficient | | | Uvalue (W/m ² K) | Sound insulation | | UV penetration |
|-----------|-----------------------------|----------------------------|---------------------------|--------------|--------|-----------------|---------------------|-----------|-------|-----------------------------|------------------|---------|----------------|
| | | | Direct Penetrate | Reflectivity | Absorb | Total Penetrate | Short Wave | Long Wave | Total | | Rm (dB) | Rm (dB) | |
| 3mm | 91.50 | 8 | 91 | 8 | 1 | 91 | 1.05 | 0.01 | 1.05 | 5.8 | 26 | 30 | 76 |
| 3.2mm | 91.50 | 8 | 91 | 8 | 2 | 91 | 1.03 | 0.01 | 1.05 | 5.8 | 26 | 30 | 75 |
| 4mm | 91.40 | 8 | 90 | 8 | 2 | 91 | 1.03 | 0.01 | 1.05 | 5.8 | 27 | 30 | 73 |
| 5mm | 91.30 | 8 | 90 | 8 | 2 | 90 | 1.03 | 0.01 | 1.03 | 5.8 | 29 | 32 | 71 |
| 6mm | 91.08 | 8 | 89 | 8 | 3 | 90 | 1.02 | 0.01 | 1.03 | 5.7 | 29 | 32 | 70 |
| 8mm | 91.89 | 8 | 88 | 8 | 4 | 89 | 1.01 | 0.01 | 1.02 | 5.7 | 31 | 34 | 68 |
| 10mm | 91.62 | 8 | 88 | 8 | 4 | 89 | 1.01 | 0.02 | 1.02 | 5.6 | 33 | 36 | 66 |
| 12mm | 91.44 | 8 | 87 | 8 | 5 | 88 | 1.00 | 0.02 | 1.01 | 5.5 | 34 | 37 | 64 |
| 15mm | 90.09 | 8 | 86 | 8 | 6 | 87 | 0.99 | 0.02 | 1.00 | 5.5 | 35 | 38 | 61 |
| 19mm | 89.73 | 8 | 84 | 8 | 7 | 86 | 0.97 | 0.02 | 0.99 | 5.5 | 37 | 40 | 59 |
| 22mm | 89.60 | 8 | 82 | 8 | 9 | 85 | 0.95 | 0.02 | 0.97 | 5.5 | 38 | 43 | 58 |
| 25mm | 89.00 | 8 | 81 | 8 | 9 | 84 | 0.93 | 0.02 | 0.95 | 5.5 | 39 | 45 | 56 |



From China, For The World

Unique advantages of Orient ultra clear glass

- ◆ Perfect product series. Thickness range of Orient ultra clear glass is from 2mm to 25mm, the min size is 920*1016mm; the max size is 3660*12500mm
- ◆ Environmental friendly protect.
- ◆ Color consistency.
- ◆ Favorable cost performance.
- ◆ Continuous supplying advantage.
- ◆ Service advantage.



Mechanical/Physical parameters

| | |
|---|--|
| Elasticity Modulus | 73.1GPa |
| Rupture Modulus (tensile strength-ultimate) | 41.4MPa |
| Knoop hardness | 456kgf/mm ² |
| Density | 2.5076g/cm ³ |
| 20-300℃ Linear Coefficient of Expansion 20-300℃ | $9.28 \times 10^{-6}/^{\circ}\text{C}$ |
| Linear Coefficient of Expansion 20-450℃ | $9.75 \times 10^{-6}/^{\circ}\text{C}$ |
| Transformation Temperature | 556℃ |
| Intenerate Temperature or Yield Point | 606℃ |
| Softening point | 710℃ |
| Annealing point | 547℃ |
| Strain point | 513℃ |
| Log2 High Temperature Viscosity log2 | 1392℃ |
| log3 High Temperature Viscosity log3 | 1152℃ |
| log4 High Temperature Viscosity log4 | 996℃ |
| Liquid phase Temperature | 1008℃ |

From China, For The World

Tempered Glass

源自中华 服务天下

- ◆ Different kinds of edges, holes and cutouts are available.
- ◆ Clear/Tinted flat & curved tempered glass
 - ◆ Min size: 300X300mm
 - ◆ Max size: 6000X2440mm
- ◆ Silk-screen printing tempered glass
 - ◆ Min size: 300X300mm
 - ◆ Max size: 4000X2440mm
- ◆ Thickness
 - ◆ 3-19mm
- ◆ Colour
 - ◆ clear, bronze, ocean blue, dark blue, lake blue, ford blue, light green, dark green, light grey, dark grey, pink, yellow, golden.





From China, For The World

Laminated Glass

源自中华 服务天下

Thickness

◆ 6.38mm, 8.38mm, 10.38mm, 12.38mm, 16.38mm,
20.38mm, 6.76mm, 8.76mm, 10.76mm, 12.76mm,
16.76mm, 20.76mm, 24.76mm, 30.76mm.

Colour

◆ clear, bronze, blue, green, grey, pink, etc.

Max size

◆ 3660x2440mm

Normal size

◆ 1830x1220mm, 2134x1524mm, 2000x1500mm,
2200x1650mm, 2440x1830mm, 3050x2134mm,
3050x2440mm, 3210x2050mm, 3210x2250mm,
3300x2134mm, 3300x2250mm, 3300x2440mm,
3660x2440mm.

◆ super quality clear & colour pvb film of 0.38mm
and 0.76mm, customer's special requirement is
also available.

ORIENT INDUSTRY GROUP CO., LIMITED

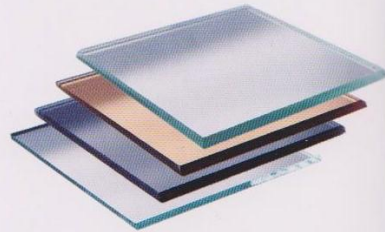
From China, For The World

Mirror

源自中华 服务天下

Aluminum mirror

- ◆ Thickness: 2mm, 3mm, 4mm, 5mm, 6mm, 8mm.
- ◆ Max size: 2440x1830mm
- ◆ Normal size: 2440x1830mm, 2000x1500mm, 2000x1600mm, 2134x1370mm, 2134x1524mm, 2134x1676mm, 2134x1830mm, 2200x1370mm, 2200x1650mm.



Silver mirror

- ◆ Thickness: 2mm, 3mm, 4mm, 5mm, 6mm, 8mm
- ◆ Max size: 3300x2440mm
- ◆ Normal size: 3300x2134mm, 2000x1500mm, 2000x1600mm, 2134x1524mm, 2134x1676mm, 2134x1830mm, 2200x1370mm, 2200x1650mm, 2440x1830mm, 3050x2134mm, 3210x2134mm, 3210x2250mm.

Safety mirror

- ◆ Safety mirror is with vinyl film back, when the mirror is broken, the splinter will be attached on. So it will not hurt people. The mirror is mainly used for furniture, waiting room, bath room, etc.
- ◆ Mirror colour: clear, green, blue, bronze, pink, yellow, dark, grey



From China, For The World

Sheet Glass

源自中华 服务天下

Clear & tinted sheet glass

Thickness

◆1.1mm, 1.2mm, 1.5mm, 1.7mm, 1.8mm, 2mm, 3mm, 4mm, 5mm, 6mm.

Colour

◆clear, green, blue, bronze, grey, dark grey

Max size

◆1830x2440mm

Normal size

◆610x914mm 600x900mm 1220x914mm 1220x1016mm
1830x1220mm 2440X1830mm

◆We can supply sheet glass which can be cut into smaller sizes for photo frame.



ORIENT INDUSTRY GROUP CO., LIMITED

Patterned Glass/figured Glass

源自中华 服务天下

From China, For The World



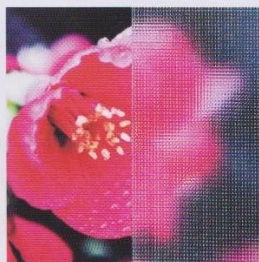
◆ 万元 Wanjī



◆ 七巧板 Karatachi



◆ 富贵花 Warda



◆ 布纹 Mistliti



◆ 四季虹 Masterlite



◆ 海棠 Flora



◆ 千禧格 Millennium



◆ 五月花 Mayflower

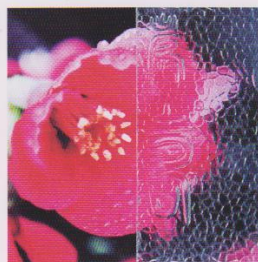


◆ 香梨 Nashiji

From China, For The World



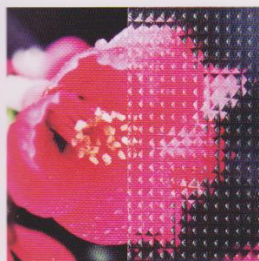
◆ 地图 Map



◆ 百寿图 Longlife



◆ 花狸金丝 Chinchilla



◆ 水晶 Crystal



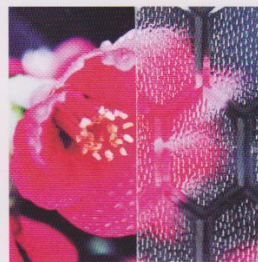
◆ 冰花 Kasumi



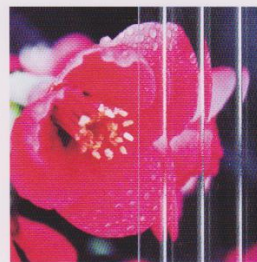
◆ 雨花 Rain-A



◆ 山水 Landscape



◆ 蜂窝 Beehive



◆ 长虹 Moru



◆ 蓝色地图 Blue Map



◆ 灰色蜂窝 Grey Beehive



◆ 茶色钻石 Bronze Diamond



◆ 茶色雨花 Bronze Rain-B



◆ 茶色梦幻 Bronze Dream



◆ 茶色地图 Bronze Map



◆ 琥珀色七巧板 Amber Karatchi



◆ 绿色海棠 Green Flora



◆ 绿色香梨 Green Nashiji

From China, For The World

Wired Glass

源自中华 服务天下

Thickness

◆ 6mm, 6.5mm, 7mm

Colour

◆ Clear, blue, green, bronze, amber, grey.

Max size

◆ 2500x1530mm

Normal size

◆ 1830x2520mm, 1830x2440mm, 1500x2000mm, 1500x2500mm, 1524x2134mm.



ORIENT INDUSTRY GROUP CO., LIMITED