



## 关于温格润 About WinGreen



温格润是一家专业的中-欧合资门窗系统公司，专注于新型聚氨酯隔热铝合金型材的节能系统门窗，于2011年成立。温格润的业务涵盖品牌推广、产品研发、生产及技术咨询。

在丹麦，我们拥有一支充满智慧与激情的技术团队，在欧洲2020年建筑节能标准要求下，对门窗的节能技术不断开拓，研发顶级的节能型门窗产品。

温格润的第一生产基地位于中国，我们引进欧洲管理人才，以及定制高效自动化的生产线，用极少的人力制造几倍于传统门窗加工的产量。我们选用最优质的原料，执行欧洲生产标准，严格进行质量把控，确保产品不仅品质高端，且节能性能稳定可靠。技术、高效和管理使温格润在呈现出高端优质产品的同时，能最大程度地兼顾全球用户的性价比要求。

同时我们积极参与国内外节能型建筑项目以及政府示范性高要求绿色建筑项目，已为多个该类项目提供性能高、品质优的节能门窗系统，为提高居室舒适度与绿色建筑事业贡献力量。

### 企业文化

温格润愿景：节省一座三峡大坝

温格润使命：致力于推广和完善聚氨酯隔热铝合金门窗技术和产品，为消费者提供高性价比的门窗产品和服务

温格润核心价值观：良心品牌，匠心品质

WinGreen is a professional Chinese-European windows & doors System joint venture, which was found in 2011. We focus on researching and producing energy-saving window and door system using Polyurethane Aluminium profile. Our business covers branding, product development, production and technical consultation.

In Denmark, we have a technical team full of wisdom and passion. With the requirements in 2020 European building energy efficiency standards, we constantly exploit new energy-saving technology for windows and doors and roll out top-level energy-saving window and door products.

WinGreen's first production base is located in China. We import European management talents as well as high-efficient automated production lines which allow us to produce much more than traditional Windows and doors processing with minimal manpower. We choose the best-quality raw materials and control the quality strictly in accordance with Europe Quality Standard to ensure our products not only have high quality but has stability and reliability.

Technology, efficiency and management make WinGreen produces the high-quality products, at the same time make WinGreen consider the profits and requirements of our global customers. Our sales department in Europe and China can meet the demand of project in different places in time and our manufacturing base in China can effectively control the cost of production.

Meanwhile, we actively participate in energy-efficient construction projects at home and abroad as well as governmental demonstration green building projects. We have provided energy-saving windows and doors system with high performance and superior quality for such projects and made contributions to improving the comfort of the living room and green buildings business.

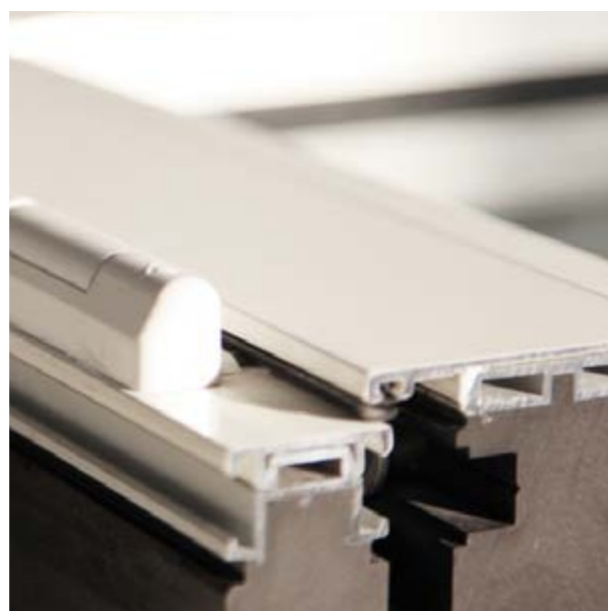
温格润业务涵盖以下方面:  
WinGreen business includes:



品牌 Branding

温格润品牌萌生于 2007 年，当温格润的几位主要创始人开始策划节能门窗这项产品计划时就创建了温格润品牌。温格润的英文名 WinGreen 意为赢得绿色，代表了创始人支持绿色事业的决心，也定位了温格润产品的基本出发点：节能的与绿色的。温格润公司于 2011 年成立，在这之后我们一直努力经营品牌，并把品牌意义深入到公司文化与日常运营中。

The brand WinGreen was born in 2007, when several of the main founders of WinGreen began planning this product plans of producing energy-saving doors and windows, they created a WinGreen brand. WinGreen means to win the green, represents the determination of the founders to support the green business, and also positioning the basic starting point of WinGreen products: energy saving. The company WinGreen was founded in 2011, after which we have been trying to develop the brand, and integrate the meaning of the brand into the company's culture and daily operations.



技术 Technology

温格润从一张白纸开始描绘自己的节能产品，从而不断研发和推进自己的节能技术。我们的研发始于 2010 年，以丹麦 2020 年建筑节能政策对门窗的要求为标准，始终以保温隔热性能为出发点，开发不同系列适应于不同用户节能要求的产品。我们的研发人员来自丹麦的门窗行业、建筑业以及制造业，综合各界智慧打造一款无论性能、还是加工，甚至是造价都能趋于最优、最易、最实惠的产品。

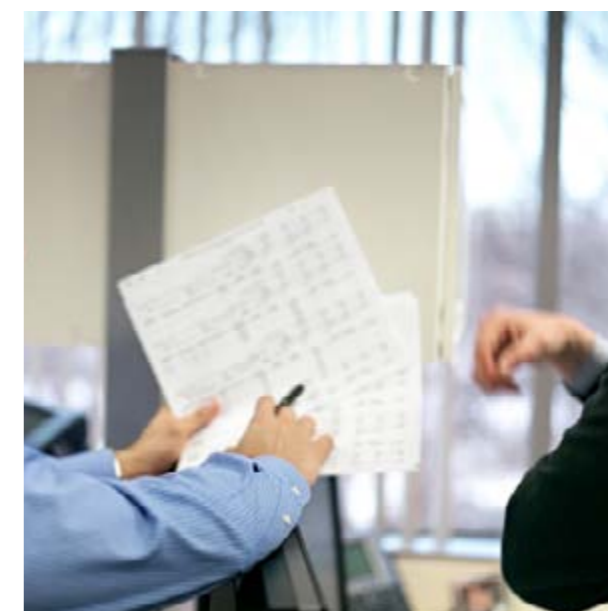
WinGreen began to make draft of our first energy-saving products from a piece of blank paper, so as to continuously develop and promote our own energy-saving technology. Our research and development began in 2010, based on the standards of doors and windows of Denmark residence in 2020. We always regard a thermal insulation performance as the starting point, and develop different series of different users to meet the requirements of energy saving products. Our R & D staffs are from Denmark's doors and windows industry, construction industry and manufacturing industry, and comprehend wisdom from all walks of life to create a product, whether performance, or processing, even cost can tend to be optimal, most easily, and the most affordable.



市场 Marketing

温格润门窗产品定位于中高端市场，且包括特殊需求市场，如被动房、节能试验型建筑、极端气候区建筑等。温格润自主开拓与维护市场，选择成为温格润的合作伙伴意味着市场成本最低化。我们始终以开放的态度欢迎有共同志向的合作伙伴加入我们，一起推广节能门窗产品与建筑节能理念。

WinGreen doors and windows products are located in the high-end market, and includes the market of special needs, such as passive house, energy-saving building, construction under extreme climate, etc.. WinGreen independently develops and maintain the market. Choose to becoming a partner of WinGreen means that the market cost could go down to the lowest. We have always welcomed the common aspirations of the partners to join us, together to promote energy-efficient doors and windows products and building energy-saving ideas.



咨询 Consulting

温格润系统不仅包括产品本身，另一项非常重要的组成部分就是技术咨询。我们为用户提供前期咨询、设计支持、节能计算、报价、加工培训、安装支持、问题排查、建筑整体节能建议等信息性服务。我们致力于把节能知识和技术通过门窗产品传输给用户和整个建筑市场，信息和意识才是推动绿色道路的可持续化产品。

WinGreen system includes not only the product itself, but also technical advisory. We provide users with pre-consultation, design supports, energy saving calculation, quotation, processing training, installation support, problem investigation, the overall energy-saving recommendations of construction and other information services. We are committed to transfer knowledge about energy saving and technology through the windows and doors products to the user and the entire building market. Information and awareness is to promote the sustainable development of green products.



温格润的型材在中国温格润工厂进行生产以及配发货。温格润工厂位于江苏江阴，工厂占地1万平米，位于无锡、常熟、张家港之交界处。

温格润工厂执行欧洲生产标准，采用欧洲进口定制生产线，全自动化生产。全程无排污。减少人力投入、减少碳排放，使温格润节能产品在其制造过程中也尽可能地减少对环境的污染。

在原料选择上，温格润工厂对原料品质有着严格把控的一整套标准，从源头上对供应商的选择、评估及管理到原料进场时的严格检测及不合格排除，在源头上为最终的成品排除瑕疵因素。

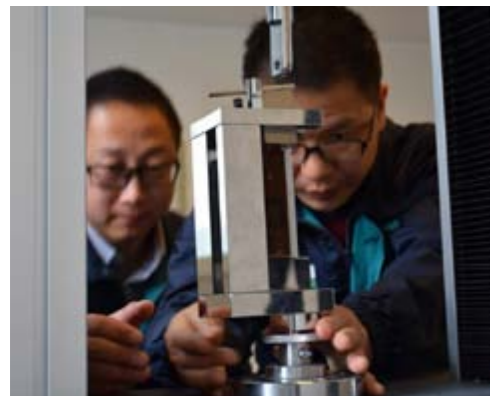
温格润工厂亦采用欧洲生产管理模式，在日常生产运行与各项决策中始终注重安全、品质、人性化。

Wingreen's profiles are produced in WinGreen plant in China. WinGreen plant is located in Jiangyin, Jiangsu province, which is located at the junction of Wuxi, Changshu, Zhangjiagang, and covers an area of 10,000 square meters.

WinGreen plant is monitored by the European production standards, using imported European production line. There are no sewage, low manpower and low carbon emissions in the process of production. Thus, Wingreen can reduce pollution in its manufacturing process as far as possible.

In the choice of raw materials, WinGreen plant has a strict set of standards to control from the source to the supplier selection. Unqualified raw materials will not be used.

WinGreen plant also adopts the European production management mode and focuses on safety, quality, humane in the daily production and the decision-making.

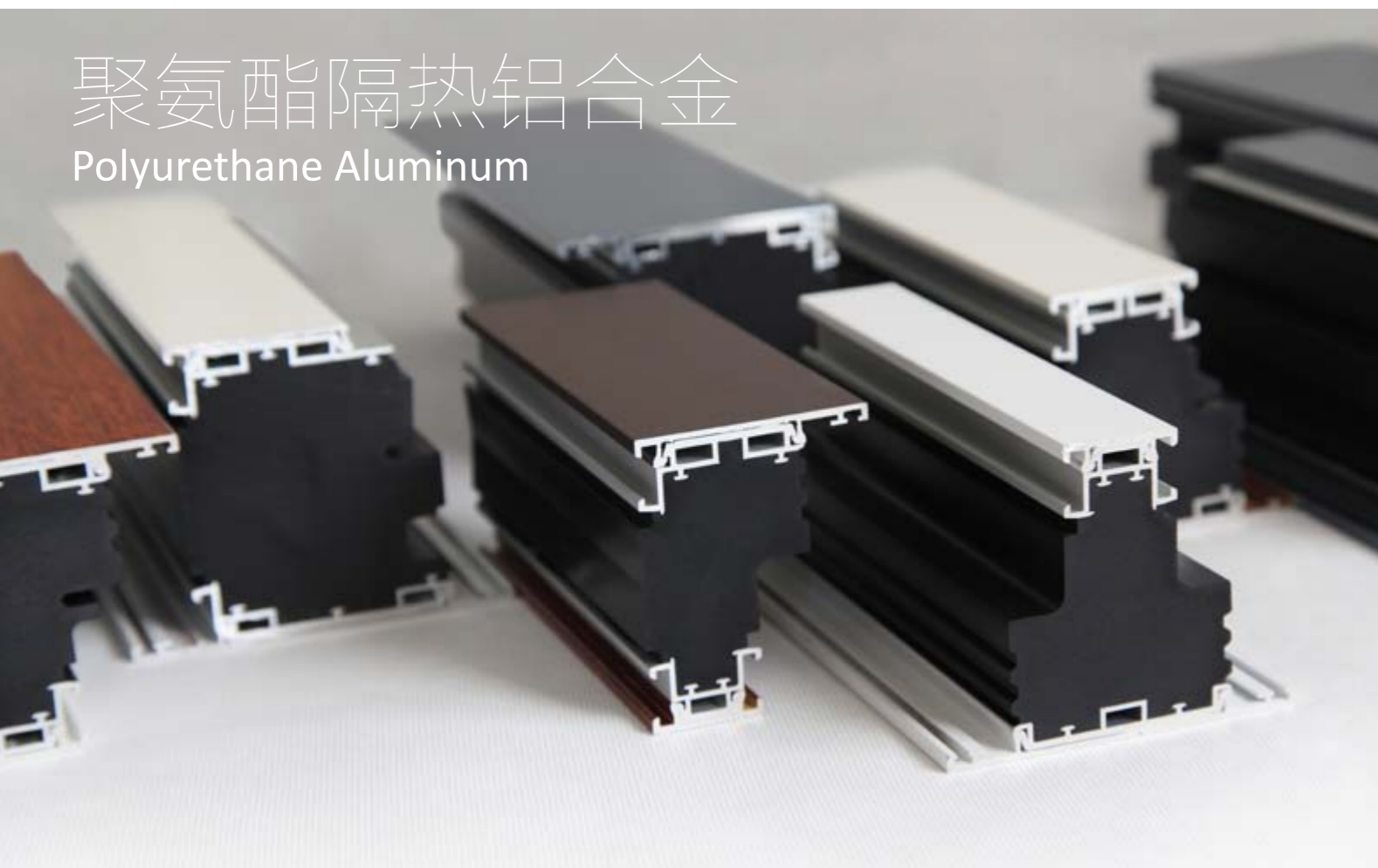


## 品质制造 Quality Manufacturing

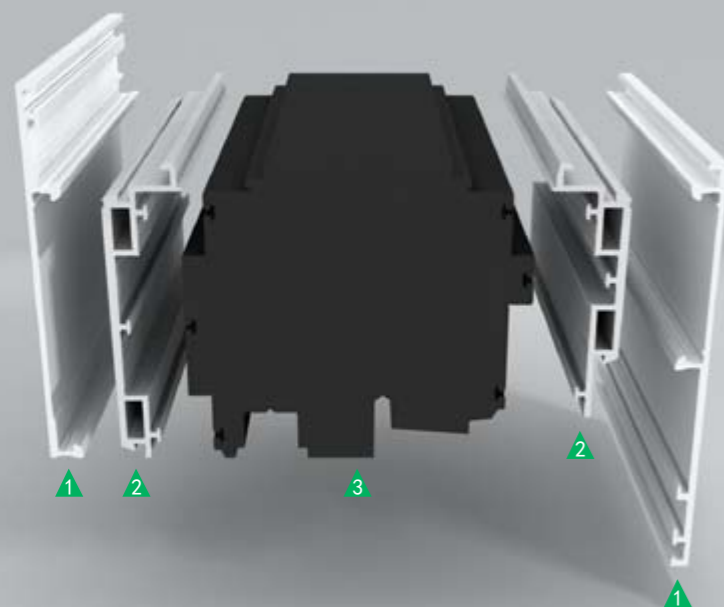


# 聚氨酯隔热铝合金

## Polyurethane Aluminum



### 型材技术 Profile



### WG75 型材 profile $U_f = 0.96 \text{ W}/(\text{m}^2 \cdot \text{k})$

型材组成示意 (图中例子为门扇型材)  
Profile structure (door sash profile)

- ▲ 1 铝外型材 aluminium outside profile
- ▲ 2 铝内型材 aluminium inside profile
- ▲ 3 聚氨酯内核 polyurethane core

温格润门窗系统使用“聚氨酯隔热铝合金”型材，是自我研发的一种新型型材，拥有多项发明专利。属于传统断桥铝型材的升级形式，但温格润颠覆了传统尼龙穿条形式的断桥，而是直接将具有高度保温隔热性能的聚氨酯由发泡的方式填充进铝型材之间，全实心断桥。

“聚氨酯隔热铝合金”型材由铝与聚氨酯组成，由外到内分为：铝外型材、铝内型材、聚氨酯。

其中，铝是最为广泛使用的门窗型材原料，其强度高，易造型，可根据喜好进行多种表面处理，达到不同的装饰效果，且易于维护、保质时间长、可回收。温格润的铝外型材亦满足以上优点，特别是铝外型材表面处理方式多样，从色彩到光泽度都可特殊定制。而温格润的铝内型材为标准氧化处理，与聚氨酯直接结合，并可长期储存备货，方便搭配不同表面的外型材，组成满足各种用户不同要求的整根型材。

聚氨酯是非常常见的高分子工业原材料，它具有弹性、灵活耐用，可以横跨各个领域、在数千计的产品中发挥作用。已经被用于替代油漆，棉花，橡胶，金属或木材等材料。除不同密度与硬度的系列产品外，还可进一步加工还能具有吸音、阻燃、防静电、防辐射等性能。自从1940年发明聚氨酯以来，它已经被广泛用于各种各样的产品，从儿童玩具到飞机机翼，并不断被研发，以适应当代技术。温格润使用的聚氨酯属于硬质聚氨酯，在国外主要消费于建筑业，而在我国，主要运用于冰箱、冷库，发挥保温功能。温格润在该材料在制造过程中采用全水发泡技术，并且已加入阻燃剂来加强系统的防火性能，安全环保。温格润型材的聚氨酯属于硬泡聚氨酯内核导热系数U值（在我国为K值）为0.062 W/(m.k)。

目前温格润拥有WG75及WG85两种系列的型材，其结构相同，但隔热厚度有差异，因而在隔热性能上也有区别。WG75型材U值（在我国为K值）为0.96 W/(m<sup>2</sup>.k)。WG85型材U值（在我国为K值）为0.75 W/(m<sup>2</sup>.k)。

WinGreen develops a new profile called Polyurethane Aluminium which is the upgrade form of traditional broken bridge profile. WinGreen directly fills foamed polyurethane with highly heat preservation and heat insulation performance into the gap between the Aluminium profiles to realize its solid heat insulation instead of the traditional nylon insertion methodology for broken bridge.

Polyurethane Aluminium, whose components are Aluminium and Polyurethane, are divided into Aluminium outside profile, Aluminium inside profile and Polyurethane core from outside to inside.

Aluminium is widely used as the raw material for window and door profile, which not only has high strength and is easy to shape and maintain, but also has long quality guarantee period and can be recycled. In addition, a variety of surface treatment on it can be done to achieve diversified decorative results according to people's different preferences. The Aluminium outside profile of WinGreen meets all the advantages mentioned and especially can be customized from color to gloss to meet your needs. The Aluminium inside profile of WinGreen which has went through standard oxidation processing, directly combined with Polyurethane, can be stockpiled for a long time and can combine outer profile with different surface into a whole so as to meet the different requirements of various customers.

Polyurethane is a very common polymer industrial raw materials, which is flexible, durable and has been applied in different fields and thousands of products to replace materials like paint, cotton, rubber, metal and wood. In addition to the series of products with different density and hardness, it can also be further processed and be added functions like sound-absorbing performance, flame retardant, antistatic property, radiation protection, etc. Polyurethane is widely used in various products from children's toys to aircraft wings, and has been improved continually to adapt to the modern technology since it was invented in 1940. Polyurethane used by WinGreen belongs to the rigid polyurethane which is mainly applied in the construction industry. However, application of Polyurethane is not mature in this field and it mainly applies heat preservation function in refrigerators, freezer in China. WinGreen adopts water base foaming technology and adds flame retardant to strengthen fireproof performance of the system. The U value of Polyurethane core of WinGreen profiles is 0.062W/(m<sup>2</sup>.k).

Now WinGreen owns series of profiles, separately named WG75 and WG85, which has the same structure but different heat insulation performances. The U value of WG75 is 0.96 W/(m<sup>2</sup>.k) while the U value of WG85 is 0.75 W/(m<sup>2</sup>.k).



WG75 多种型材 WG75 profiles

## Window System

WinGreen window system focuses on energy-saving. Having reached the top result levels of different performance testing, WinGreen window system is proved to be an ideal partner of energy-saving buildings. WinGreen window is designed simple, modern and elegant in appearance. The window system is available for European standard hardware with U groove designing. It can achieve different openings functions such as fixed, tilt and turn and inward opening. And it is suitable for combining with auto control system.

## 窗系统

温格润窗系统以节能为主要特色，经过欧洲 CE 测试、国内专业测试中心多次检测，多项性能均达到最高标准，是节能建筑的理想搭档。其外观现代简洁，型材采用欧式 U 槽设计，可搭配多种品牌的五金件。开启方式涵盖固定式，内平开，内倒，内开内倒，组合式等。可安装多种自动控制装置以配合建筑智能化系统。

### WG75

WG75 is the core product series of WinGreen.

WG75 window system is ideal for various places: residence, office building, hotel, hospital, school, plant, testing building ect.

In cooperation with different electronical control system, it can achieve more fuction requirements.

### WG75

WG75 系列是温格润的核心产品。

适合多种类型建筑：住宅、办公楼、酒店、医院、学校、厂房、实验楼等。

开启方式涵盖固定式，内平开，内倒，内开内倒，组合式等。

可兼容多种电子控制设备及特殊五金件，实现多种使用可能。

#### 【Features】

- profile depth of 75mm
- available glass thickness: 24-52mm
- hardware for U groove, 12/18-13
- available for hidden hinge
- profile surface color can be customized
- possible for combining with curtain wall
- compatible with WG75 door system
- window sash width up to 1400mm

#### 【performance】

- window load resistance up to Class C
- watertightness of Class 9A
- air permeability of Class 4
- acoustic performance of 35 (-2; -5) dB
- $U_w$  value goes down to  $0.88 \text{ W}/(\text{m}^2 \cdot \text{K})$

The test results above are according to:

UNE-EN 14351-1:2006+A1:2011

EN ISO 10077-2:2012

$U_w$  value glazing: 44 mm triple glazing,  $4_{le}/16_{arg}/4/16_{arg}/4_{le}$   
( $_{arg}$  = Air 10%, Argon 90% and  $le$  = Low emissivity)

with a thermal transmittance coefficient of  $0.6 \text{ W}/\text{m}^2 \cdot \text{K}$ .

Testing at LGAI Technological Center, S.A.

#### 【特征】

- 型材深度 75mm
- 可搭配玻璃厚度 24-52mm
- 使用欧标 12/18-13 U 槽及兼容式五金件
- 可安装隐藏合页
- 型材表面颜色和风格可定制
- 可与幕墙结合
- 可与 WG75 门系列结合设计
- 窗扇最宽可至 1400mm

#### 【测试性能】

- 整窗抗风压性能 9 级
- 整窗水密性能 6 级
- 整窗气密性能 8 级
- 整窗隔音性能 35 (-2; -5) dB
- 整窗 K 值低至  $0.88 \text{ W}/(\text{m}^2 \cdot \text{K})$

以上测试参考国标 GB/T 8484-2008 GB/T 8478-2008

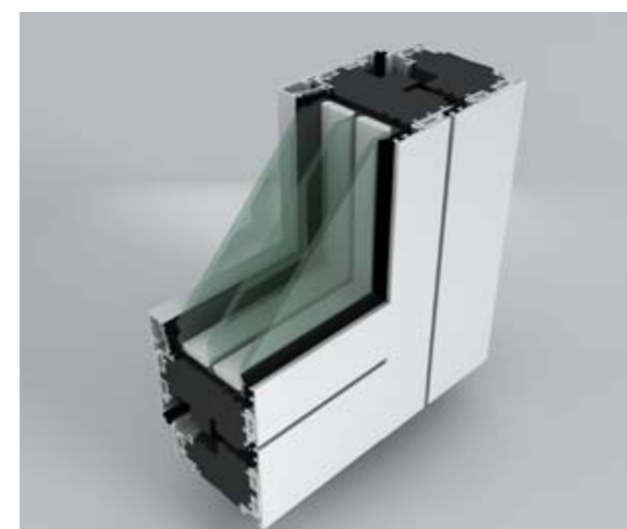
玻璃配置为：5/16<sub>Arg</sub>/5<sub>Le</sub>/V/5

测试机构为：国家建筑工程质量监督检验中心

江苏省建筑工程质量检测中心有限公司



WG75 窗户样角图  
WG75 window corner sample



WG75 窗户样角图  
WG75 window corner sample



## Door System

WinGreen door system focuses on energy-saving. Having reached the top result levels of different performance testing, WinGreen door system is proved to be an ideal partner of energy-saving buildings. WinGreen door is designed simple, modern and elegant in appearance. The door system is available for European standard hardware with U groove designing. There are opening choices of inward and outward both for single door and double door. And it is available for combining with auto control system.

## 门系统

温格润门系统以节能为主要特色，经过国内专业测试中心多次检测，多项性能均达到最高标准，是节能建筑的理想搭档。其外观现代简洁，型材采用欧式U槽设计，可搭配多种品牌的五金件。具有门单开和双开门，开启方式涵盖内开，外开，内倒推拉，组合式等。可安装多种自动控制装置以配合建筑智能化系统。

### WG75 Single Door

WG75 is the core product series of WinGreen.

WG75 single door system is ideal for various places: residence entrance, office, balcony, medical room, testing room, kitchen, laboratory, classroom, high requirement storage room, escape route, ect. In cooperation with different electronical control system, it can achieve more function requirements.

#### 【Features】

- profile depth of 75mm
- available glass thickness: 24-52mm
- available for insulated panel of the thickness of 24-52mm
- hardware for U groove, 12/18-13
- matchable for panic handle for escaping
- various choices of threshold
- profile surface color can be customized
- possible for combining with curtain wall
- compatible with WG75 window system
- door sash width up to 1200mm
- door sash height up to 2500mm
- door sash weight up to 240kg
- suitable for electrical lock and auto door closer

#### 【performance】

- window load resistance up to Class 9
- air permeability of Class 8
- $U_w$  value goes down to  $0.77 W/(m^2 \cdot K)$

The test results above are according to:  
GB/T 8484-2008, GB/T 7106-2008  
Door panel: 52mm XPS  
Testing at Chinese national center for quality supervision and test of building engineering

### WG75 单平开门

WG75 系列是温格润的核心产品。

WG75 单开门开启方式具有内开，外开，应用场合广泛，适合住宅出入口、阳台、办公室、医疗室、实验室、教室、高要求储藏室，逃生通道等，可兼容多种电子控制设备及特殊五金件，实现多种使用可能。

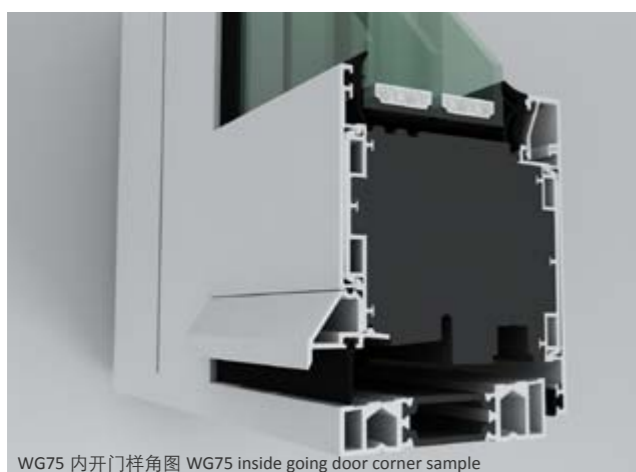
#### 【特征】

- 型材深度 75mm
- 可搭配玻璃厚度 24-52mm
- 可搭配厚度在 24-52mm 之间的隔热板材
- 使用欧标 12/18-13 U 槽及兼容式五金件
- 可搭配逃生门五金件
- 门槛条具有多种选择
- 型材表面颜色和风格可定制
- 可与幕墙结合
- 可与 WG75 窗系列结合设计
- 门扇最宽可至 1200mm
- 门扇高最高可至 2500mm
- 门扇重量最高可至 240kg
- 可搭配电子锁具、闭门器等电子设备

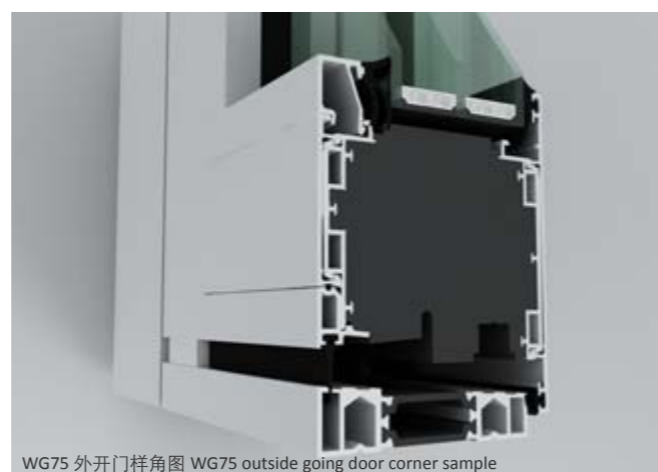
#### 【测试性能】

- 整门抗风压性能 9 级
- 整门气密性能 8 级
- 整门 K 值低至  $0.77 W/(m^2 \cdot K)$

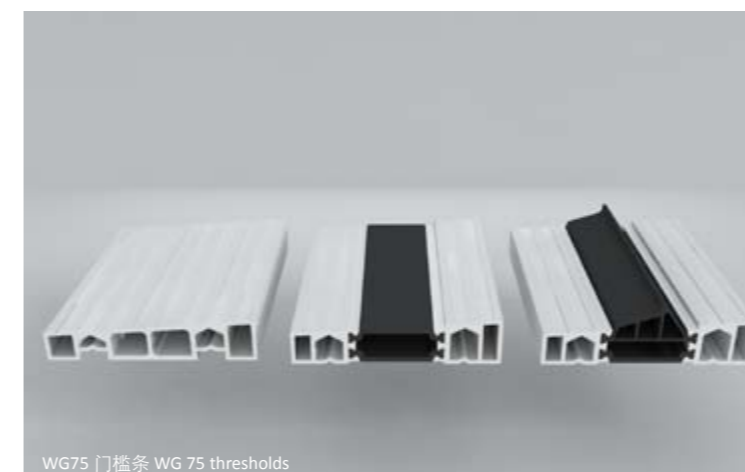
以上测试参考国标 GB/T 8484-2008, GB/T 7106-2008  
门芯板配置为：52mm 挤塑聚苯板  
测试机构为：国家建筑工程质量监督检验中心



WG75 内开门样角图 WG75 inside going door corner sample



WG75 外开门样角图 WG75 outside going door corner sample



WG75 门槛条 WG 75 thresholds



WG75 逃生门 WG75 escaping door

## Door System

WinGreen door system focuses on energy-saving. Having reached the top result levels of different performance testing, WinGreen door system is proved to be an ideal partner of energy-saving buildings. WinGreen door is designed simple, modern and elegant in appearance. The door system is available for European standard hardware with U groove designing. There are opening choices of inward and outward both for single door and double door. And it is available for combining with auto control system.

## 门系统

温格润门系统以节能为主要特色，经过国内专业测试中心多次检测，多项性能均达到最高标准，是节能建筑的理想搭档。其外观现代简洁，型材采用欧式U槽设计，可搭配多种品牌的五金件。具有门单开和双开门，开启方式涵盖内开，外开，内倒推拉，组合式等。可安装多种自动控制装置以配合建筑智能化系统。

### WG75 Double Door

WG75 is the core product series of WinGreen. WG75 double door system makes a wide entrance. It is ideal for various places: residence entrance, meeting room, balcony, medical room, testing room, laboratory, classroom, high requirement storage room, escape route, ect. In cooperation with different electrical control system, it can achieve more function requirements.

#### 【Features】

- profile depth of 75mm
- available glass thickness: 24-52mm
- available for insulated panel of the thickness of 24-52mm
- hardware for U groove, 12/18-13
- matchable for panic handle for escaping
- various choices of threshold
- profile surface color can be customized
- possible for combining with curtain wall
- compatible with WG75 window system
- double door sashes width in together up to 2400mm
- door sash height up to 2500mm
- door sash weight up to 240kg
- suitable for electrical lock and auto door closer

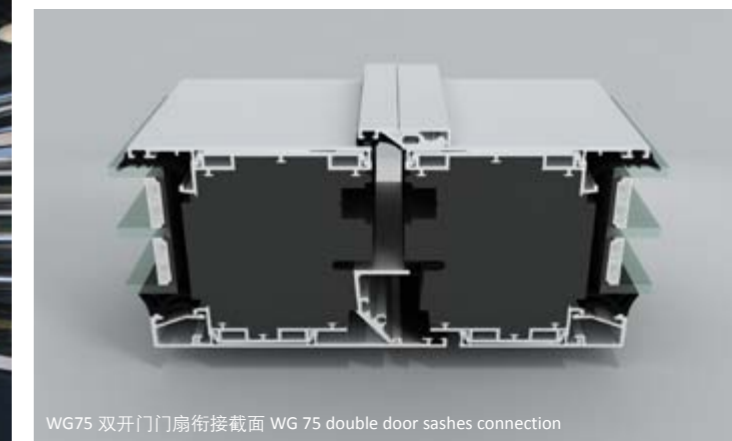
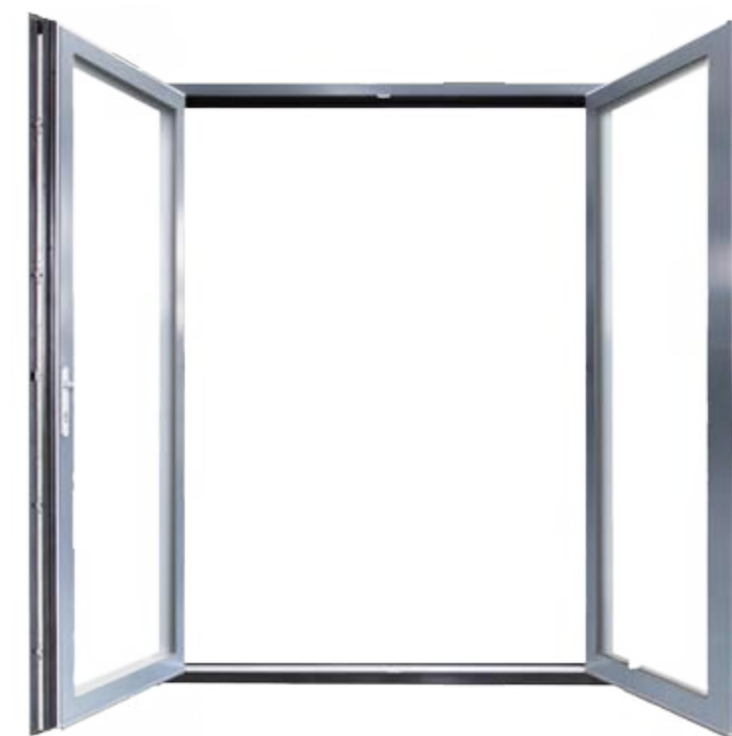


### WG75 双平开门

WG75 系列是温格润的核心产品。WG75 双开门创造宽敞的出入环境，应用场合广泛，适合住宅出入口、阳台、会议室、医疗室、实验室、教室、高要求储藏室、逃生通道等，可兼容多种电子控制设备及特殊五金件，实现多种使用可能。

#### 【特征】

- 型材深度 75mm
- 可搭配玻璃厚度 24-52mm
- 可搭配厚度在 24-52mm 之间的隔热板材
- 使用欧标 12/18-13 U 槽及兼容式五金件
- 可搭配逃生门五金件
- 门槛条具有多种选择
- 型材表面颜色和风格可定制
- 可与幕墙结合
- 可与 WG75 窗系列结合设计
- 双门扇整体最宽可至 2400mm
- 门扇高最高可至 2500mm
- 门扇重量最高可至 240kg
- 可搭配电子锁具、闭门器等电子设备



WG75 双开门门扇衔接截面 WG 75 double door sashes connection

## 门系统 Door System

温格润门系统以节能为主要特色，经过国内专业测试中心多次检测，多项性能均达到最高标准，是节能建筑的理想搭档。其外观现代简洁，型材采用欧式U槽设计，可搭配多种品牌的五金件。具有门单开和双开门，开启方式涵盖内开，外开，内倒推拉，组合式等。可安装多种自动控制装置以配合建筑智能化系统。

WinGreen door system focuses on energy-saving. Having reached the top result levels of different performance testing, WinGreen door system is proved to be an ideal partner of energy-saving buildings. WinGreen door is designed simple, modern and elegant in appearance. The door system is available for European standard hardware with U groove designing. There are opening choices of inward and outward both for single door and double door. And it is available for combining with auto control system.

## 加工及安装 Assembly and Installation

### WG75 Double Door

WG75 is the core product series of WinGreen.

WG75 tilt and sliding door system brings a wide pleasant entrance. No space is occupied by opening door sash. Ventilation starts when only tilt function is on. Big wide fixed unit can bring plenty light in and also give inside decoration more inspiration.

It is ideal for residence balcony and landscape terrace. In cooperation with different electronical control system, it can achieve more fuction requirements.

#### 【Features】

- profile depth of 75mm
- available glass thickness: 24-52mm
- available for insulated panel of the thickness of 24-52mm
- hardware for U groove, 12/18-13
- frame profile used as threshold
- profile surface color can be customized
- possible for combining with curtain wall
- compatible with WG75 window system
- door sash width up to 1680mm
- door sash height up to 2380mm
- door sash weight up to 160kg
- suitable for electrical lock and auto door closer



### WG75 内倒推拉门

WG75 系列是温格润的核心产品。

WG75 内倒推拉门带来宜人的出入环境，不仅可创造宽敞的出入空间，且不会有开启门扇占据周边空间的问题。大面积落地固定扇为室内带来采光的同时可为环境装饰设计提供更多可能，开启扇内倒状态适合通风，兼具窗户的功能。内倒推拉具有超高密封及保温性能。适合住宅阳台、景观露台等，可兼容多种电子控制设备及特殊五金件，实现多种使用可能。

#### 【特征】

- 型材深度 75mm
- 可搭配玻璃厚度 24-52mm
- 可搭配厚度在 24-52mm 之间的隔热板材
- 使用欧标 12/18-13 U 槽及兼容式五金件
- 门槛为框型材
- 型材表面颜色和风格可定制
- 可与幕墙结合
- 可与 WG75 窗系列结合设计
- 开启扇最宽可至 1680mm
- 开启扇高最高可至 2380mm
- 开启扇重量最高可至 160kg
- 可搭配电子锁具、闭门器等电子设备



温格润系统的拼装加工以及安装施工过程都需要遵循专门的操作说明。这是为了保证系统的整体品质以及性能的正常发挥。温格润为加工商及合作伙伴提供以下服务，以保证加工和安装顺利进行：

- 加工设备评估及选用建议
- 加工技术培训
- 安装监督
- 安装问题解决方案
- 节能安装技术咨询
- 使用过程中的维护指导
- 售后问题解决方案

WinGreen provides instructions for assembly and installation. In order to guarantee system quality and perfect performance, besides instructions, WinGreen also provides following services to our processors and cooperators:

- Processing equipment evaluation and suggestion
- Assembling training
- Installation inspection
- Installation problem solution
- Installtion method consulting for building energy-saving
- Maintenance guidance during system using
- solution for after installation problem