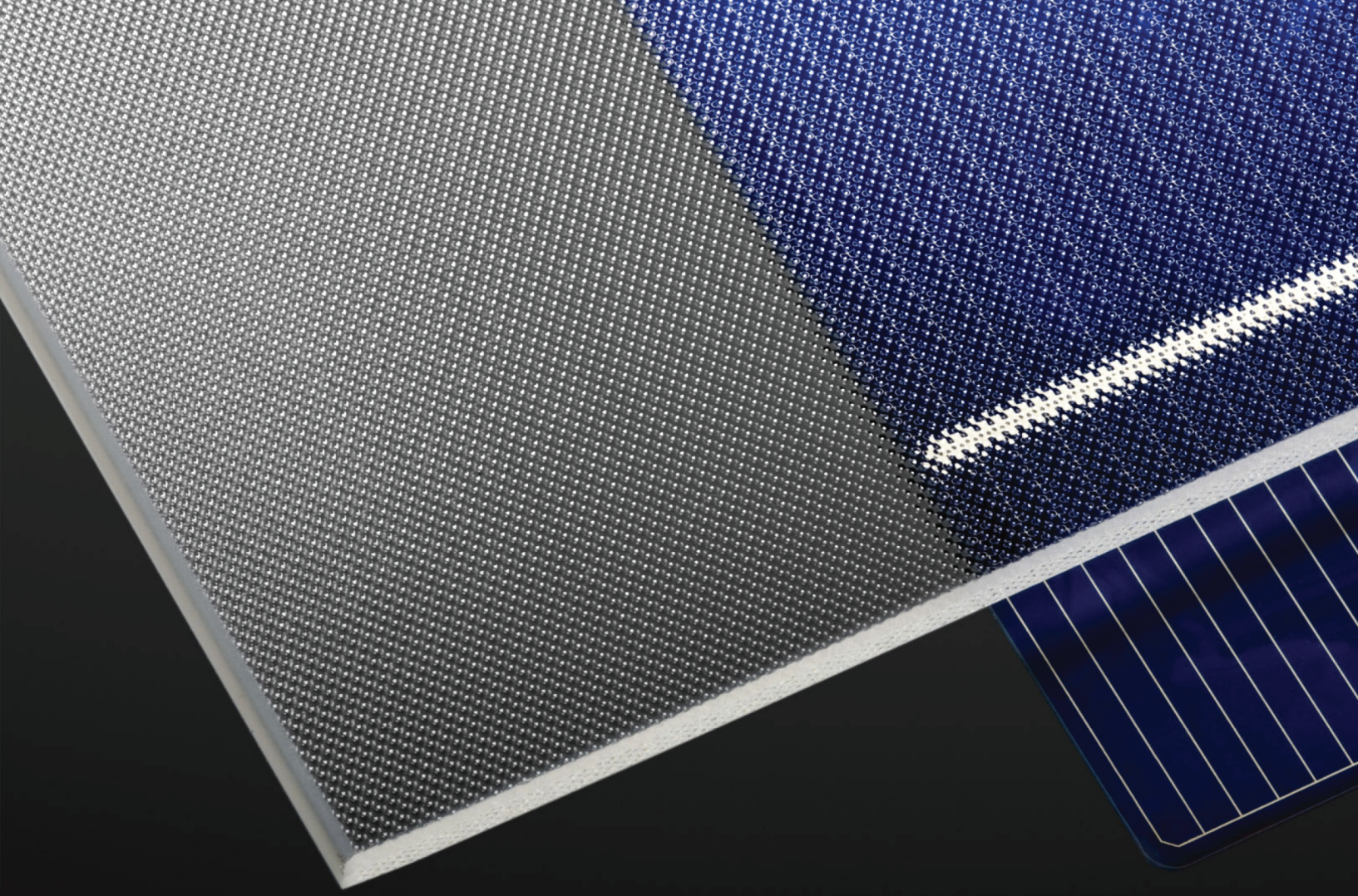


alliaverre

SOLAR GLASS

www.av-solar.com

COMPANY CULTURE
企业文化

经营理念

以人为本，科学办企，多元并举，与时俱进，稳步发展。

BUSINESS PHILOSOPHY

People - oriented, scientific do mine, multiple simultaneously, advancing with the times, steady development.

阿利沃瑞道德

对企业——忠诚奉献、共创共赢

对社会——遵纪守法、共建和谐

对工作——认真负责、发挥潜力

对领导——换位思考、同舟共济

对朋友——至诚至爱、致合致意

对同志——坦诚新人、互助互利

对家庭——尊老爱幼，善待老人

对自己——从严从实、成就自我

ALLIAVERRE MORALITY

Loyalty to the enterprise, create a win-win situation

To the society - to abide by the law, to build harmony

Responsible for working and acting

On the leadership - empathy, help each other

To friends - sincere love, to pay tribute

On comrades - frank new people, mutual benefit

On the family - respect for the young, treat the elderly

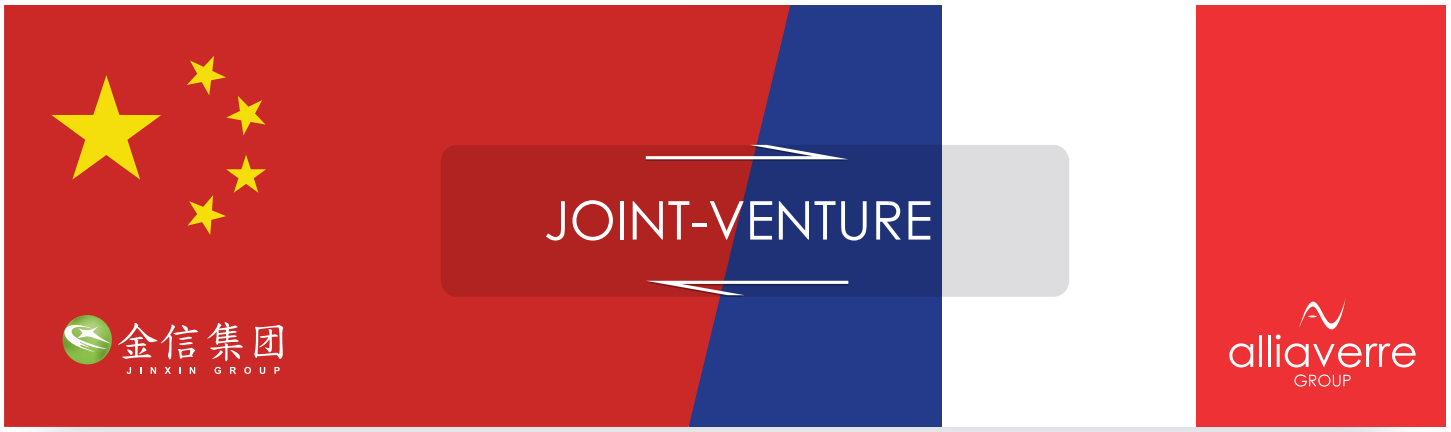
On their own - strictly from reality, the achievements of self

阿利沃瑞

思想端正，找准位置，遵纪守法，心系泰岳，不为私利，有所作为。

ALLIAVERRE THOUGHT

Correct thinking, identify the location, abide by the law, the Department of alliaverre not for personal gain, make a difference.

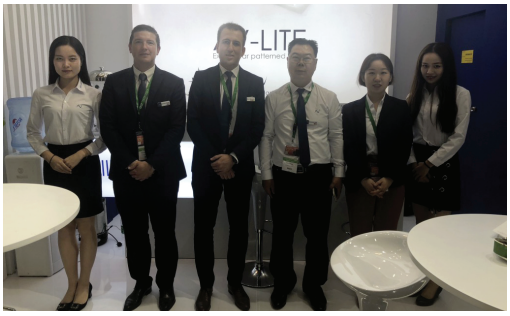


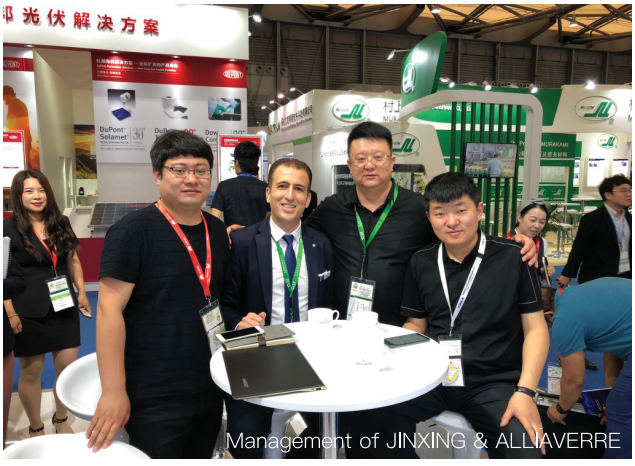
一个中法合资企业

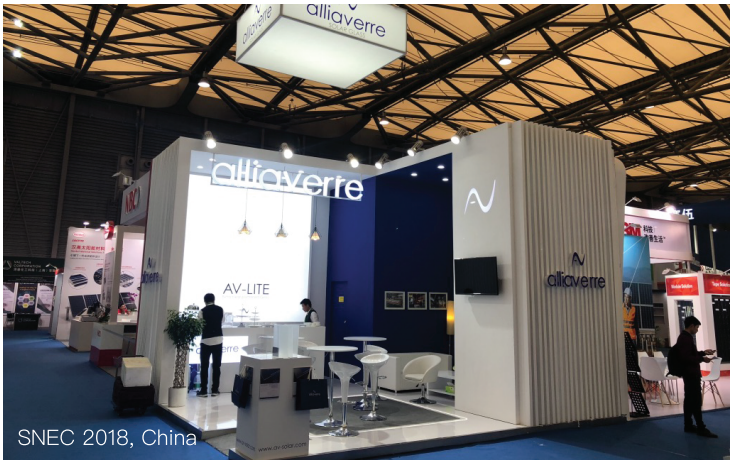
凭借在平板玻璃领域的跨代技术，法国公司Alliaverre集团与中国金星集团结成合资企业，生产太阳能玻璃。
该工厂位于中国唐山，距离北京1小时车程，配备了最先进的设备，在品牌质量上严格把关，同时拥有高生产率以至于大大降低了成品成本。
因为我们与客户的关系是建立在长期的基础上，所以我们渴望为他们提供最好的服务。并且我们的技术和商业团队，来自多个国家，深入世界各地，从而提供更多的反应性和接近性。
在中国市场的销售由金星集团管理，所有出口由阿里沃瑞集团管理。

A FRANCO–CHINESE JOINT–VENTURE

With a transgenerational know–how in the field of flat glass, the French company Alliaverre Group is allied with the Chinese Jinxing Group in a joint–venture for the manufacture of solar glass.
Located in Tangshan, 1 hour from Beijing, the plant is equipped with state–of–the–art equipment, thus offering a rigorous and continuous quality control as well as a high productivity bringing down significantly the cost of the finished product.
Because our relationships with our customers are built on the long term and because we are anxious to bring them the best service, our technical and commercial teams, multi–origins, are implanted all over the world thus offering more reactivity and proximity.
Sales in the Chinese market are managed by Jinxing Group and all exports are managed by Aliaverre Group.




Management of JINXING & ALLIAVERRE



SNEC 2018, China

TÜVRheinland®
CERTIFIED

AV-LITE

Extra clear patterned glass

alliaverre
GROUP

AV SOLAR
SOLAR GLASS
www.av-solar.com

MANUFACTURING
生产制造

先进的设备，完善的工艺，确保公司产品无论质量还是产量上对迅速崛起的市场游刃有余

作为 阿利沃瑞 全球生产网络的一部分，我们选择最优秀的供应商，不断优化改善整个生产链

Advanced equipments and well-developed processes ensure the quality and production can serve the fast-growing market flexibly.

As a part of the international production network of alliaverre , we continuously optimize the production chain together with our selected suppliers

alliaverre
SOLAR GLASS

In the performing of the production system, alliaverre group lies in a full implementation of the spirit of "strict requirement and constantly strive for perfection". To start with the end-user requirements to reach the balance of logistics and zero stock.

In the quality monitoring, alliaverre group always adhere to "Quality is controlled by production not by inspection".Truly ensure that the quality control will be carried out in every working procedure during production.

MANUFACTURING PROCESS
生产过程

在生产系统执行方面，阿利沃瑞玻璃坚持贯彻“严格要求，精益求精”的精神，以最终用户需求为生产起点，追求物流平衡，真正做到零库存。

在质量控制方面，阿利沃瑞 玻璃始终以“质量是生产出来而非检验出来”为理念，真正做到把质量检验缺陷控制在前期每一道工序中。

原片检验 Raw Glass Inspection → 上片 Placing Raw Glass → 磨边清洗 Edging and Cleaning → 过程检验1 In-process Inspection 1 → 镀膜 Coating → 过程检验2 In-process Inspection 2 → 钢化 Tempering → 清洗和烘干 Cleaning and Drying → 巡检 Patrol Inspection → 自动下片 Automatic Picking → 包装 Packing → 成品检验 Production Inspection

QUALITY MANAGEMENT AND METHODS
质量管理及方法

- 唐山 阿利沃瑞太阳能玻璃有限公司是根据国际标准 (ISO9001,ISO14001,OHSAS18001) 和顾客要求而定制的
- 我们在供应商处建立预防维护及经验学习 (LL) 的质量管理模式
- 我们在现代化的分析中心和检测室内，对太阳能玻璃进行系统分析，以此实现产品的持续改进和对客户的支持

- The quality management system of alliaverre is built basted on the international standards (ISO9001, ISO14001, OHSAS18001) and the customer requirements
- We establish the quality management model of preventation, maintenance and experience learning for the company as well as the supplier
- In order to achieve continuous improvement for products and support for customers, we analyzed photovoltaic glass system at the center of analysis and testing room

OUR WORK IS GUIDED BY OUR QUALITY PRINCIPLES
我们的工作标准是我们的质量原则

a

我们的目标是从产品质量和服务上全面满足顾客的要求

Our goal is to fully satisfy our customers' expectation through the quality of our products and services

b

质量和质量的提高是每位员工的职责和目标——从公司的管理层到每一个员工

Quality and quality improvement is every associate's responsibility and ultimate goal the board of directors to apprentices

c

我们的工作方向、工作程序、体系及目标是根据国际标准、顾客期望值和我们的行业知识和经验制定的。我们质量的基础建立在我们对工作方向和工作体制的了解和执行

Our directives,processes,systems and goals are based on requirements from international standards,customers expectations,our knowledge and experience.Understanding and compliance with these directives and processes is the foundation of our quality

d

质量意味着一开始就把事情做好，从而防止结果的失败。工作程序质量的提高能降低成本，提高生产效率

Quality means doing things right from the beginning,thus preventing failures in the end.Continuous improvement of the quality of processes lowers costs and increases productivity

e

防范比改正缺陷更重要。我们不断地提供工具及方法来保证质量。从错误中吸取经验，从一开始就找到错误的根源并杜绝它的发生

Avoiding failures is more important than eliminating defects.We systematically apply methods and tools for preventive quality assurance,learn from mistakes and eliminate their root causes without delay

f

我们的供应商从很大程度上影响我们产品质量和服务的水平。因此我们的供应商必需达到我们所要求的高标准

Our suppliers contribute substantially to the quality of our products and services.Therefore our suppliers must live up the same high quality standards we have adopted

alliaverre
SOLAR GLASS

HEALTH, SAFETY AND ENVIRONMENT PROTECTION
健康安全环境

我们致力为所有员工营造一个健康、安全和环保的工作环境。我们的原则是：确保所有员工的安全和健康，保持一个可持续发展的环境。通过我们的努力来支持公司的长期繁荣和成功以及在中国的持续发展。

We ensured to provide a healthy, safe and environmental friendly workplace for all the employees and the society. Our company will have a long-term success and sustainable development in China with our great support.

ALLIAVERRE EHS POLICY
健康安全环境方针

稳步发展 SUSTAINABILITY

我们认同，我们的业务活动必须遵循节省资源、保护生态环境，对社区负责，对下一代负责的原则。因此，保护人类健康和安全，节约使用资源，保护环境是公司的一个基本方针。

For Human health and safety, we agree that our activities should follow the principles of saving resources, protecting the environment and taking responsibility and next generations. We promise that these will be basic policies of alliaverre group.

责任 RESPONSIBILITY

我们必须防止和避免人类和环境危害事件，必须严格遵守安全生产、职业健康、环境保护法律法规。管理层必须承担危险源辨识和评估的职责，并负责对此采取相应措施。

It is the task of all associates to help prevent the endangering of people and the environment, as well as to maintain strict compliance with all laws and regulations pertaining to work safety and the protection of people's health and the environment. It is a leadership task to recognize such dangers, to evaluate them, and to undertake appropriate actions.

产品 PRODUCTS

我们的产品开发和生产严格执行公司的3S原则；安全、清洁、经济。通过我们的产品提高对人类的安全保证、减少环境负担、提高材料的循环使用、减少处置。

Our product development and production are safe, eco-friendly and economical.with our products, human safe and recycling of materials with environment burden win be reduced.

生产过程 PROCESSES

在工业设计中，在考虑经济因素的同时，我们将人类的健康和安全至于首位，并力求生产工艺对环境的影响降至最低。我们也准备了应急响应方案。这条方法也是我们与相关方合作的基础。

We design processes to ensure that-wherever economically feasible-people's health and safety have priority and that effects on the environment are kept to a minimum. We are prepared to cope with emergencies. This is also the spirit in which we cooperate with suppliers of goods and services.

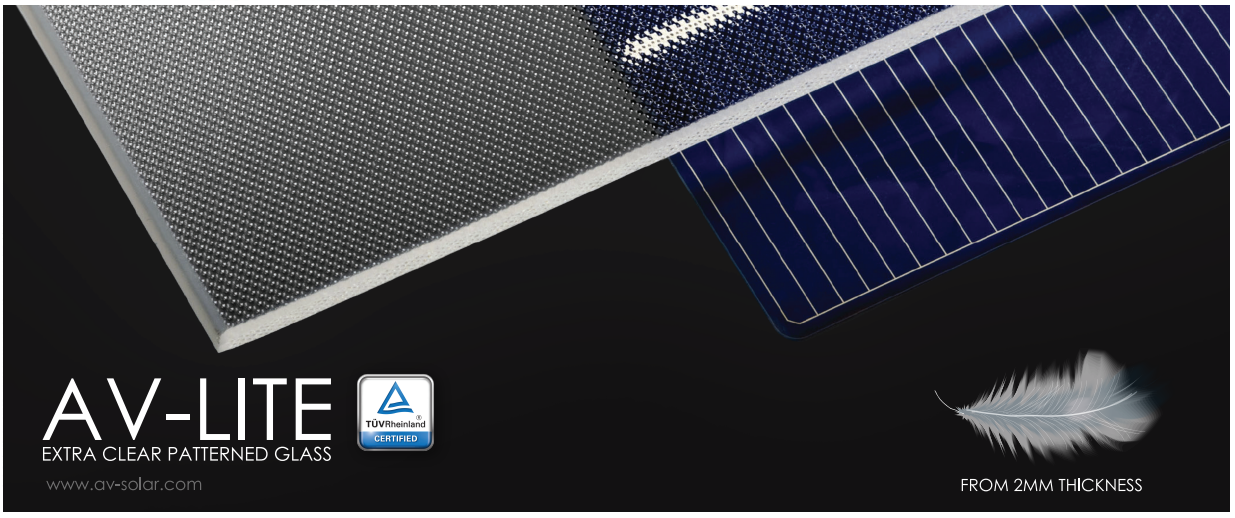
持续改进 IMPROVEMENT

我们定期对活动和工艺进行评估，并检测我们的活动和工艺对环境造成的影响。通过评估和检测找出存在的问题，挖掘持续改进的潜能，以此保证我们的生产安全、职业健康和环境保护管理体系的有效性。

We review our processes and our behavior on a regular basis, just as we measure their effects on people and in the environment. This is how we identify weak points and potential for improvement. and ensure the effectiveness of our program for work safety and protection pf people's health and the environment.

alliaverre
SOLAR GLASS

TEMPERED SOLAR GLASS
钢化太阳能玻璃



·产品规格

厚度范围	2~4.0mm
最大尺寸	1000×2000mm
最小尺寸	300×300mm
透光率(波长范围380~1100nm)	≥91.6%
产品性能参数	1040g钢球1m高度自由落体，玻璃不破碎
产品执行质量标准	满足JC/T2170-2013; GB15763.2-2005; EN12150/DIN1249D; 日本JIS等标准
产品包装	木托盘平放或花格箱竖放，也可根据客户要求定制包装

· SPECIFICATIONS OF THE PRODUCTS

Thickness Range	2~4.0mm
Maximum Size	1000×2000mm
Minimum Size	300×300mm
Solar Transmittance (Wavelength Range 380~1100nm)	≥91.6%
Performance	Glass won't be broken if crashed by a 1040g steel ball from one meter high
Quality Standard	Meets the standards of JC/T2170-2013; GB15763.2-2005; EN12150/DIN1249D; JIS and etc.
Packaging	Keep wood pallets flat or keep open create upright; packaging also can be customized

ARC SOLAR GLASS WITH HIGH TRANSMITTANCE
高透性ARC光伏玻璃

·产品规格

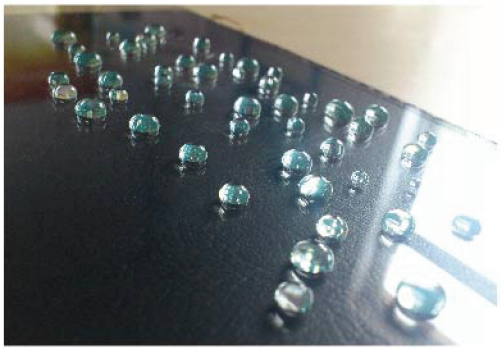
厚度范围	2.0~4.0mm
最大尺寸	1000×2000mm
最小尺寸	300×300mm
透光率(波长范围380~1100nm)	≥93.8%
产品性能参数	硬度≥4H;透光率增益:2.3%~2.5%;附着力:0级
产品执行质量标准	满足JC/T2170-2013; S/NZS2208:1996; EN12150/DIN1249D; ASTM-E-903(891)-96; 日本JIS等标准
产品包装	木托盘平放或花格木箱竖放,也可根据客户要求定制包装
产品优势	1、玻璃表面采用纳米涂层处理,形成致密结构的高增益减反镀膜,提升透过率2.3%~2.5% 2、室外恶劣环境下膜层耐酸碱性强

· SPECIFICATIONS OF THE PRODUCTS

Thickness Range	2.0~4.0mm
Maximum Size	1000×2000mm
Minimum Size	300×300mm
Solar Transmittance (Wavelength Range 380~1100nm)	≥93.8%
Performance	Hardness≥4H; Light transmittance gain:2.3%~2.5%; Adhesion:0 level
Quality Standard	Meets the standards of JC/T2170-2013; AS/NZS2208:1996; EN12150/DIN1249D; ASTM-E-903(891)-96; JIS and etc
Packaging	Keep wood pallets or keep open create upright;packaging also can be customized
Advantages	1.Combined with nanometer anti-reflective coating technology, glass surface forms a dense structure of high-gain film, which increasea2.3%~2.5% of solar transmittance 2.Good performance on acid and alkali resistance under terrible environments outdoor

alliaverre
SOLAR GLASS

SELF-CLEANING ARC SOLAR GLASS WITH HIGH TRANSMITTANCE
超疏水高耐侯性ARC光伏玻璃



· 产品规格

厚度范围	2.0~4.0mm
最大尺寸	1000×2000mm
最小尺寸	300×300mm
透光率（波长范围380~1100nm）	≥93.3%
产品性能参数	硬度≥6H；透光率增益：2.0%；附着力：0级
产品执行质量标准	满足JC/T2170-2013；S/NZS2208:1996; EN12150/DIN1249D; ASTM-E-903(891)-96; 日本JIS等标准
产品包装	木托盘平放或花格木箱竖放，也可根据客户要求定制包装
产品优势	1、玻璃表面采用纳米涂层处理，形成致密结构的高增益减反镀膜，提升透过率2.0% 2、膜层具有超强硬度，可很好抵抗风沙、盐碱潮湿的侵蚀 3、膜层具有抗脏污自洁净功能，减少组件维护工作 4、极强的耐候性能的ARC膜层保持组件低的功率衰减

· SPECIFICATIONS OF THE PRODUCTS

Thickness Range	2.0~4.0mm
Maximum Size	1000×2000mm
Minimum Size	300×300mm
Solar Transmittance (Wavelength Range 380~1100nm)	≥93.3%
Performance	Hardness≥6H; Light transmittance gain:2.0%; Adhesion:0 level
Quality Standard	Meets the standards of JC/T2170-2013; AS/NZS2208:1996; EN12150/DIN1249D; ASTM-E-903(891)-96; JIS and etc
Packaging	Keep wood pallets or keep open create upright; packaging also can be customized
Advantages	1.Combined with nanometer anti-reflective coating technology,glass surface forms a dense structure of high-gain film, which increasea2.0% of solar transmittance 2.Good resistance to the erosion of the sand, salt and alkali with the super hardness of the layer 3.Self-cleaning function to decrease the work of maintenance for the module 4.With great weather resistance of ARC layer, module can keep low power reduction

SUPER SELF-CLEANING DOUBLE-ARC SOLAR GLASS WITH HIGH TRANSMITTANCE

超疏水高透Double-ARC光伏玻璃

·产品规格

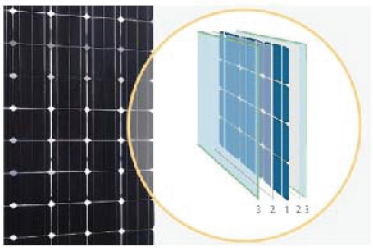
厚度范围	2.0~4.0mm
最大尺寸	1050×2100mm
最小尺寸	500×500mm
透光率(波长范围380~1100nm)	≥93.5%
产品执行质量标准	满足JC/T2170-2013；S/NZS2208:1996; EN12150/DIN1249D; ASTM-E-903(891)-96; 日本JIS等标准
产品包装	木托盘平放或花格木箱竖放
产品优势	1、玻璃表面采用纳米涂层处理，形成致密结构的高增益减反镀膜，提升透过率2.2% 2、在光伏玻璃光面镀制两层膜，有效封堵单层膜的空隙，隔绝Na、k离子的析出，大大提高膜层的耐候性 3、膜层具有抗脏污自洁净功能，减少组件维护工作 4、极强的耐候性能的ARC膜层保持组件低的功率衰减
组件适宜区域	干燥少雨区域

· SPECIFICATIONS OF THE PRODUCTS

Thickness Range	2.0~4.0mm
Maximum Size	1050×2100mm
Minimum Size	500×500mm
Solar Transmittance (Wavelength Range 380~1100nm)	≥93.5%
Quality Standard	Meets the standards of JC/T2170-2013; AS/NZS2208:1996; EN12150/DIN1249D; ASTM-E-903(891)-96; JIS and etc
Packaging	Keep wood pallets or keep open create upright
Advantages	1.Combined with nanometer anti-reflective coating technology,glass surface forms a dense structure of high-gain film, which increasea2.0% of solar transmittance 2.Good resistance to the erosion of the sand, salt and alkali with the super hardness of the layer 3.Self-cleaning function to decrease the work of maintenance for the module 4.With great weather resistance of ARC layer, module can keep low power reduction
Suitable Areas	Dry and rainless place

alliaverre SOLAR GLASS

SHEET SOLAR GLASS FOR DOUBLE-GLASS MODULE
双玻组件用薄板玻璃



·产品规格

厚度范围	2.0~2.5mm
最大尺寸	1000×1950mm
最小尺寸	300×300mm
产品执行质量标准	满足JC/T2170-2013；S/NZS2208:1996; EN12150/DIN1249D; ASTM-E-903(891)-96; 日本JIS等标准
产品包装	木托盘平放或花格木箱竖放
产品优势	1、玻璃平整度优于行业标准 2、较好满足双玻组件用玻璃对抗风荷载、抗雪载、落球冲击性能的要求

· SPECIFICATIONS OF THE PRODUCTS

Thickness Range	2.0~2.5mm
Maximum Size	1000×1950mm
Minimum Size	300×300mm
Quality Standard	Meets the standards of JC/T2170-2013; AS/NZS2208:1996; EN12150/DIN1249D; ASTM-E-903(891)-96; JIS and etc
Packaging	Keep wood pallets or keep open create upright
Advantages	1.Smoothness is better than industry standards 2.Meets the requirements of double-glass modules which need glass to against wind load, snow and falling ball

- Clean all type of solar panels
- Keep the **Anti-Reflective Coating** efficiency
- Does not damage aluminium rails and mounting apparatus
- pH neutral

MANUAL

1. Apply AV-CLEAN generously on the surface to be cleaned.
2. Remove dirt by passing a dry squeegee.
3. A second application may be necessary depending on the surface status.
4. Clean tools with water after use.

MADE IN FRANCE

BIODEGRADABLE eco Friendly

PACKING

1 L for 6 to 7 Sqm approximatively

Ready to use

5 Liters Around 35 SQM	**210 Liters** Around 1470 SQM
20 Liters Around 140 SQM	**1000 Liters** Around 7000 SQM

Available in concentrated formula 1:10

For which types of application?

AV-CLEAN optimizes the efficiency of solar panels by eliminating all natural soils such as: bird droppings, dusts, lichens, mosses, leaves and industrial pollution ...

Properties

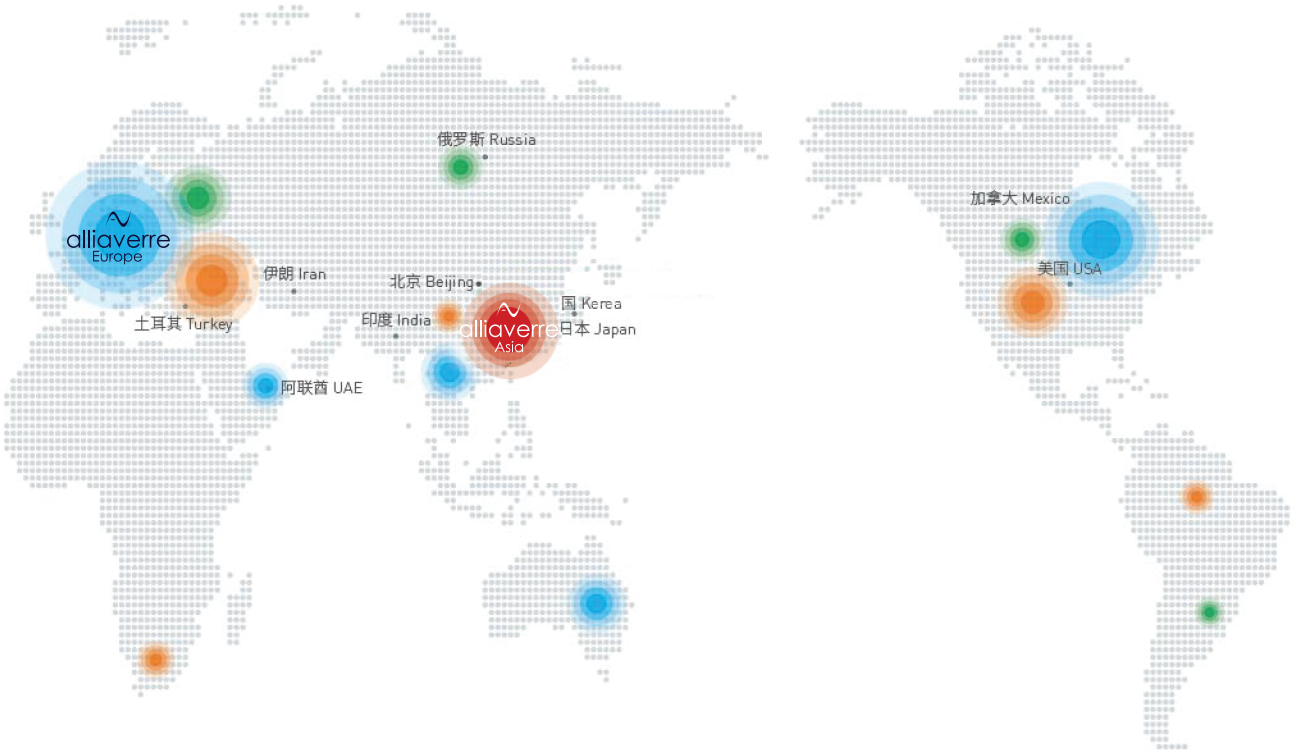
Fast action and optimal result without rinsing.
Exclusive formula to limit traces, thanks to its water-repellent properties.
Do not attack the materials.

Brackets

Photovoltaic and thermal solar panels.

IMPORTANT NOTICE:
The statements here are made in good faith based on tests and observations we believe to be reliable. However, the completeness and accuracy of the information is not guaranteed. Before using, the end-user should conduct whatever evaluations are necessary to determine that the product is suitable for the intended use.
Alliaverre expressly disclaims any implied warranties and conditions of merchantability and fitness for a particular purpose. Alliaverre only obligation shall be to replace such quantity of the product proven to be defective. Except for the replacement remedy, Alliaverre shall not be liable for any loss, injury, or direct, indirect, or consequential damages resulting from product's use, regardless of the legal theory asserted.

SDSM request:
Contact us : av-clean@alliaverre.com



Alliaverre Asia

1/F, Changxing Building 1,
No. 888 Bibo Road,Pudong District,
Shanghai, 200120 - China
Tél: +86 138 1842 3308
e-mail: av-clean@alliaverre.com

Alliaverre Europe

17 avenue du superbe
Orenoque 80440 Boves - France
Tél: (+33) 03 22 47 47 55
Fax: (+33) 03 22 38 01 33
e-mail: av.eu@alliaverre.com

Alliaverre M.E

PO box 48904, office no-1602,
owned by Sheikh Hazzaa Bin
Zayed Al Nahyan, Dubai trade
center, Dubai, United Arab Emirates
e-mail: m.e@alliaverre.com