Six things to know when choosing the right vacuum insulated glass according to LANDGLASS

In this article, LandGlass provides a series of important aspects to bear in mind when choosing vacuum insulated glass, which provide a series of important features which will reduce the consumption of building materials and energy, reduce carbon emissions, and result in a healthy and sustainable quality of life.

ith the steady progress of the national energy conservation and emission reduction strategy of 'Carbon peak and carbon neutrality', and increasing pursuit of natural comfort, quiet and joyful quality of life by conscious people,

vacuum insulated glass that offers ultra thermal insulation, noise reduction, and condensation-free features is gradually becoming known to the public and finds its applications in the fields of commercial and residential buildings as well as high-end refrigeration appliances. As

the market is now flooded with different types of vacuum insulated glass products and technologies, LandGlass provides the following key guidelines to help understand and choose the reliable vacuum insulated glass products.

1. THE PRINCIPLE AND STRUCTURE OF VACUUM INSULATED GLASS

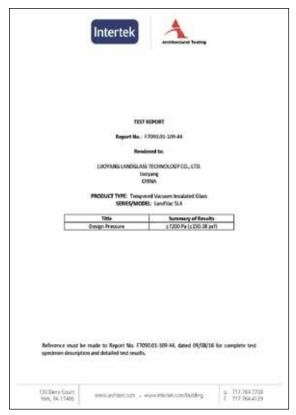
Vacuum insulated glass consists of two or more glass panes separated with spacers. After the edges are sealed, the air inside is evacuated to create a vacuum space between the two panes. By using the near zero heat transfer and zero sound transmission characteristics of the vacuum













space, vacuum insulated glass is becoming the new generation of energy-saving glass products, providing outstanding performance in ultra thermal insulation and noise reduction.

2.WHAT ARE THE CHARACTERISTICS OF VACUUM INSULATED GLASS?

Vacuum insulated glass should offer reliable product performance, especially with regards to thermal insulation and noise reduction. Secondly, vacuum insulated glass should provide a certain degree of safety, retaining the characteristics of safety glass. Vacuum insulated glass should also

be able to withstand certain external forces so that it can resist wind loads or temperature loads in applications. Last but not least, vacuum insulated glass must be able to sustain the stability of long-term performance.

3.WHAT TESTS DOES VACUUM INSULATED GLASS NEED TO UNDERGO?

Vacuum insulated glass undergoes three types of testing: safety testing, ageing testing, and on-line quality testing. Safety testing includes: fragmentation tests, impact tests, and wind resistance tests. Ageing testing includes: weathering resistance tests and sunlight





resistance tests. Quality testing includes: air tightness tests and online performance tests.

4. WHICH CERTIFICATION DOES VACUUM INSULATED GLASS NEED TO OBTAIN? WHAT DOES A THIRD-PARTY AUTHORITATIVE CERTIFICATION TELL YOU?

Qualified vacuum insulated glass needs to obtain three types of certification: product performance certification, safety certification, and qualification certification. The performance certification primarily certifies performance regarding thermal insulation, noise reduction, and wind resistance. Safety certificates mainly include: safety glazing product certificate and certification for testing items required by

the RoHS directive. Qualification certificates mainly include: 3C certificates and green building materials and products certificates.

Third-party authoritative certification tells you that the vacuum insulated glass product made by the manufacturer is tested and certified concerning its performance, quality, and application.

5.WHAT ARE THE BENEFITS OF VACUUM INSULATED GLASS WHEN USING METAL SEALING?

As the melting point of the metal sealing material is low, it will not cause annealing of the tempered glass in the process of edge sealing. Secondly, the metal material has better malleability. When vacuum glass in use is exposed to additional loads caused by temperature differences or other external

forces, the metal sealing material can withstand more deformation and maintain a good sealing effect. These benefits of metal sealing make vacuum insulated glass more reliable and provide better performance.

6. HOW CAN WE DETERMINE WHETHER A MANUFACTURER IS A SUPPLIER OF QUALIFIED VACUUM INSULATED GLASS?

First, the manufacturer's insulated vacuum glass products should comply with the requirements of the national standards for vacuum insulated glass. Secondly, the manufacturer should have a well-functioning ISO quality management system. Finally, the manufacturer should have sufficient production capacity and experience with large enterprise applications. As a landmark

in high-performance energy-saving glass products, the wide application of vacuum insulated glass will greatly reduce the consumption of building materials and energy, decrease carbon emissions in the construction field, and bring the general public healthy and sustainable quality of life.



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