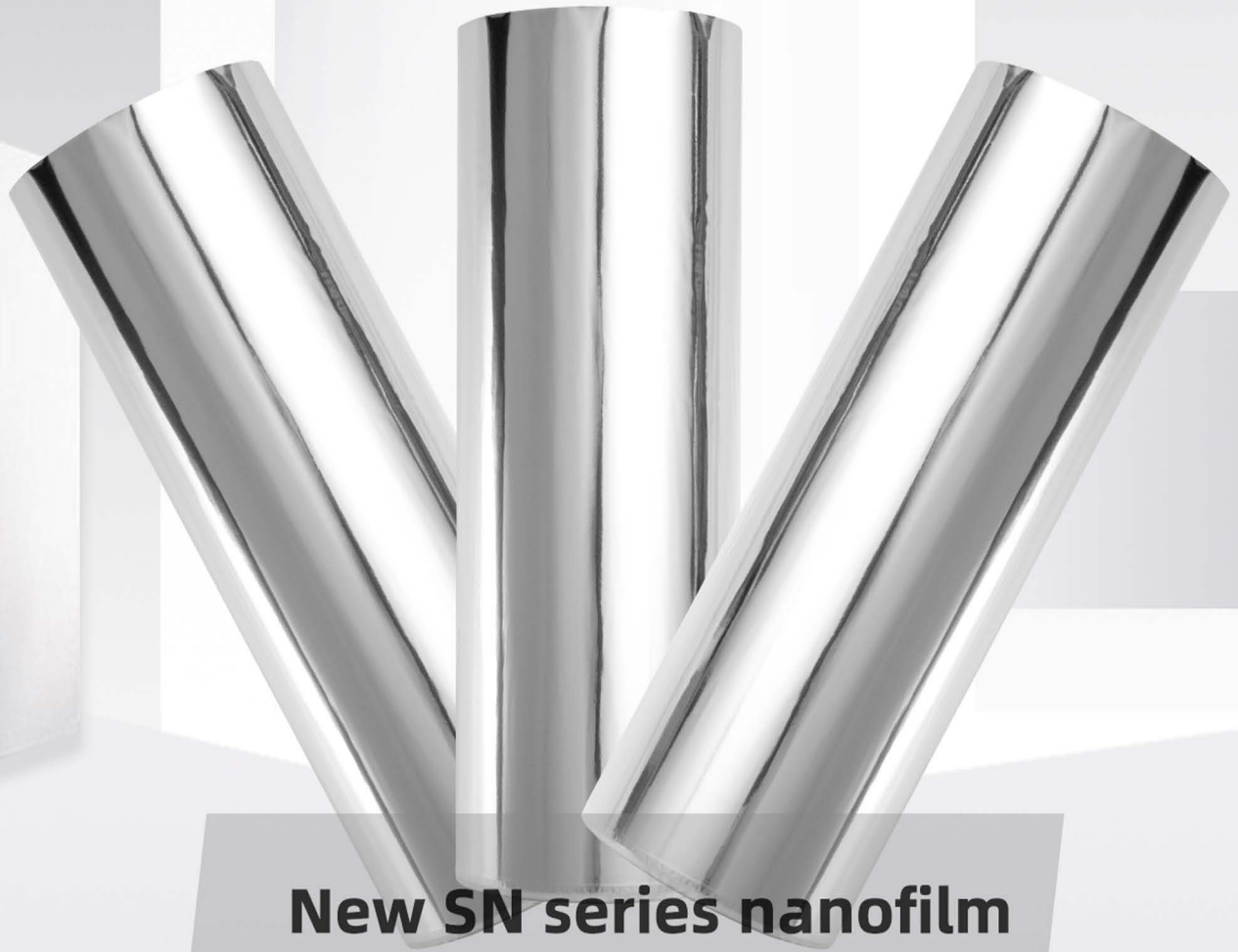


# SUPER TECH



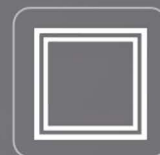
**New SN series nanofilm**



HIGH BARRIER  
PROPERTY



NO ALUMINUM  
FOIL LAYER



NO MARGINAL EFFECT



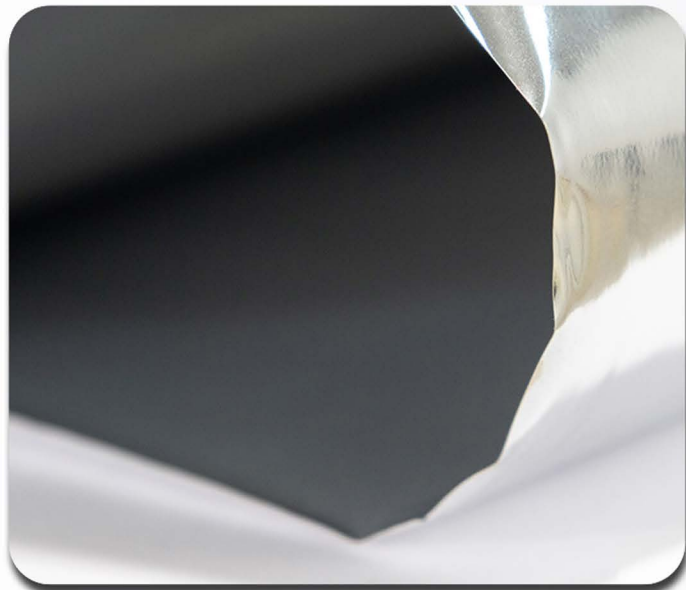
In response to the special requirements of low thermal conductivity, high barrier and long life of vacuum insulation board barrier packaging bags

Our company independently developed the SN series nano film, which has higher water and gas barrier function than traditional aluminum-free barrier films



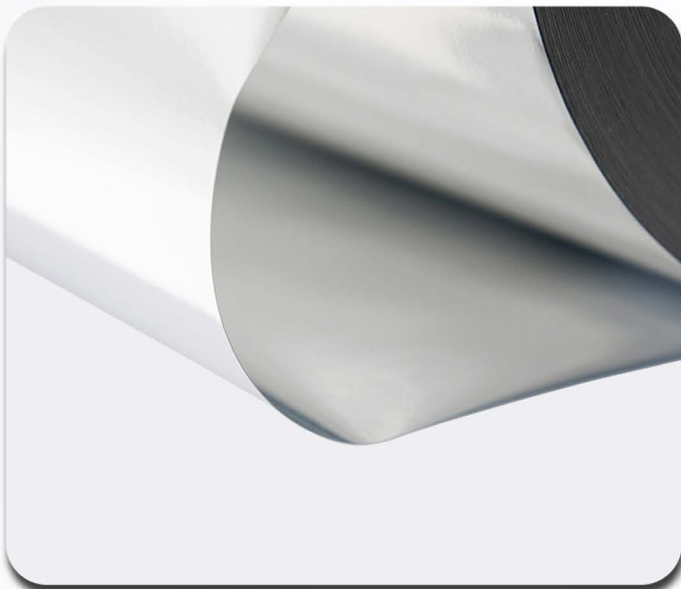
Completely eliminate the reliance of barrier bags on aluminum foil layers

It overcomes the high edge effect caused by aluminum foil layers at the same time



Effectively improve the resistance of the barrier layer in high temperature and high humidity environments. Good interlayer adhesion, superior bending resistance performance

Significantly improve the lifespan and energy-saving performance of VIP panels, with proprietary intellectual property rights



# Product Parameters



| Product name   | SNOH aluminum-free film | SNO nanofilm       | SNE nanofilm         | SNV nanofilm       | NAG nanofilm (fumed silica) | test method      |
|--|-------------------------|--------------------|----------------------|--------------------|-----------------------------|------------------|
| puncture force(N)  | 26                      | 28                 | 31                   | 30                 | 21                          | GB/T21302        |
| heat seal strength   | 63                      | 70                 | 73                   | 60                 | 61                          | QB/T2358         |
| Water vapor transmission rate (g/m <sup>2</sup> /day)            | 0.05                    | 0.03               | 0.05                 | 0.05               | 0.0038                      | GB1037           |
| Nitrogen transmission rate (g/m <sup>2</sup> /day)               | 4*10 <sup>-7</sup>      | 2*10 <sup>-8</sup> | 3.5*10 <sup>-8</sup> | 5*10 <sup>-8</sup> | 1.1*10 <sup>-7</sup>        | Internal testing |
| High temperature aging<br>△Kmw/ (m·k)<br>80°C→30°C, 65%RH,28days | ≤1.2                    | ≤0.8               | ≤1.2                 | ≤1.2               | ≤1                          | GB/T39548        |
| High temperature aging<br>△Kmw/ (m·k)<br>70°C, 90%RH,30days      | ≤3                      | ≤2                 | ≤3                   | ≤5                 | ≤1.2                        | GB/T39548        |
| High temperature aging<br>△K 105°C, 48Hours                      | 3.5                     | 2.7                | 5.5                  | 3.5                | 3.5                         | GB/T39548        |



With excellent product performance, Super Tech vacuum insulation panel products have won the **REACH** and **ROHS** certifications which are two important EU market access certifications.



## Test Report

No.: CANEC23004927803

Date: Jul 05, 2023

Page 1 of 12

Client Name: Fujian Supertech Advanced Material Co.,Ltd.

Client Address: LIANGUAN INDUSTRIAL AREA, LIANCHENG COUNTY, LONGYAN CITY, FUJIAN PROVINCE, CHINA

Sample Name: Vacuum insulation board

Buyer: Haier

The above sample(s) and information were provided by the client.

SGS Job No.: 23709118

Sample Receiving Date: Jun 21, 2023

Testing Period: Jun 21, 2023 ~ Jul 05, 2023

Test Requested: Select test(s) as requested by the client.

Test Method(s): Please refer to next page(s).

Test Result(s): Please refer to next page(s).

| Test Requirement   | Conclusion |
|--|------------|
| EU RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU and client's requirement - Cadmium, Lead, Mercury, Hexavalent chromium, Polybrominated biphenyls (PBBs), Polybrominated diphenyl ethers (PBDEs), Dibutyl phthalate (DBP), Butyl benzyl phthalate (BBP), Bis(2-ethylhexyl) phthalate (DEHP) and Diisobutyl phthalate (DIBP) | Pass       |

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Signed for and on behalf of  
SGS-CSTC Standards Technical Services Co., Ltd. Guangzhou Branch

Jany Zhong

Jany Zhong  
Approved Signatory

scan to see the report



741F51DE



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SGS-CSTC Standards Technical Services Co., Ltd.  
Guangzhou Standards Technical Laboratory

No. 188, Kechu Road, Science & Technology Development Area, Guangzhou, Guangdong, China 510663  
中国·广东·广州高新技术产业开发区科学城科珠路188号 邮编: 510663

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Attention: To check the authenticity of testing inspection report & certificate, please contact us at telephone: (86-755) 83871443, or email: [CN\\_Consult@sgs.com](mailto:CN_Consult@sgs.com)

SGS (China) Technical Service Co., Ltd.  
Guangzhou, China

16 溪涌路广东·广州高新技术产业开发区科学城科园19号 邮编: 510963

1 (86-30) 82155555 www.sgs.com.cn  
1 (86-30) 82155555 sgs.china@sgs.com

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# Application fields



Vacuum insulation panels



food vacuum packaging



energy-saving building materials outsourcing

**Master the core technology of the whole industrial chain of vacuum insulation  
Its quality is trustworthy**



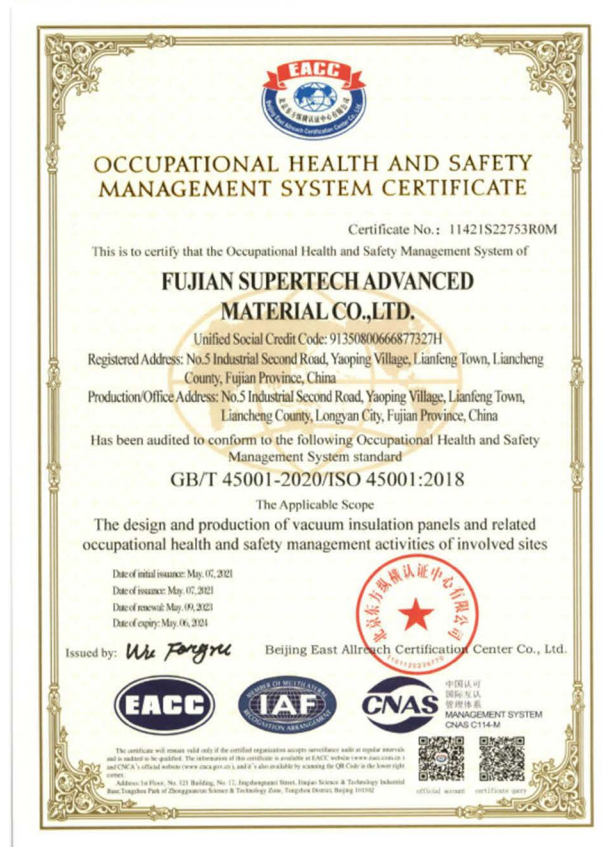


**闽赛特**  
**SUPER TECH**

Fujian Super Tech Advanced Material Co., Ltd. was established in 2007. It is a national high-tech enterprise focusing on the development and application research of vacuum insulation material manufacturing technology. It was listed on the A-share Science and Technology Innovation Board in February 2020 (stock code: 688398 ). It has been continuously exploring the field of vacuum insulation, and continues to apply for downstream applications of vacuum insulation panels (home appliances such as refrigerators and freezers), and vacuum insulation technology applications (cold chain logistics such as cold storage, refrigerated trucks, insulated boxes, etc.) It also upgrades production equipment, quickly responds to customers' individual needs, and provides customers with energy-saving and environmental-friendly vacuum insulation panel products and efficient insulation solutions. It has been in the industry for many years. With its advantages in technology, quality, equipment, etc., Fujian Super Tech has won a good reputation and maintained its leading position in the field of vacuum insulation panel industry.

**OUR R&D TEAM IS COMPOSED OF SOME EXPERTS IN AEROSPACE VACUUM FIELD OF CHINA, AND HAS ESTABLISHED LONG-TERM COOPERATION WITH MANY WELL-KNOWN DOMESTIC RESEARCH INSTITUTES AND UNIVERSITIES.**

# AT A RATE OF NEARLY 10 PATENTS A YEAR, A TOTAL OF 118 HIGH-VALUE PATENTS ARE DRIVING THE VIGOROUS DEVELOPMENT OF THE VACUUM INDUSTRY.



# Partner customers

