Makelucky

Protect life, civilization and the earth

Polymer Technology Transformation Center

Product Introduction

Focus on polymer technology transformation
Committed to becoming a global leader in micro-nano and graphene technology standards

Makelucky

Transformation & application of black technology
Revolution of technologies and engineering

Helping our clients
become leading businesses !

Patents & Inspection Reports

Our two major clients

Makelucky has been conferred a special product authorization code by Sinopec and China National Petroleum Corporation respectively.

They are:
130199009095024 4 for rare earth high temperature nano ceramic coating/nonconducttive & heatproof / cream white

130199009095024 3 water-based nano ceramic particles / ACM heat insulating coating / cream white

Where our products have been used

Interior heat insulation of tanks

Explosion prevention of plane black box

Fire prevention of fire suit and blanket

Rust prevention & heat insulation in oilfields and petrochemical industry

Corrosion prevention of ships & offshore oil platforms

Where our products have been used

Government

- Naval oil depot
- Zhuhai Gangxing Pipeline Natural Gas Co. Ltd.

SINOPEC

- Yanshan Petrochemical Company
- Shengli Oilfield

Hotels

- Hilton
- Kempinsky
- Vienna

Others

- Guangzhou Shipyard
- Changyun Cold Chain Plant

More

Four Categories of products

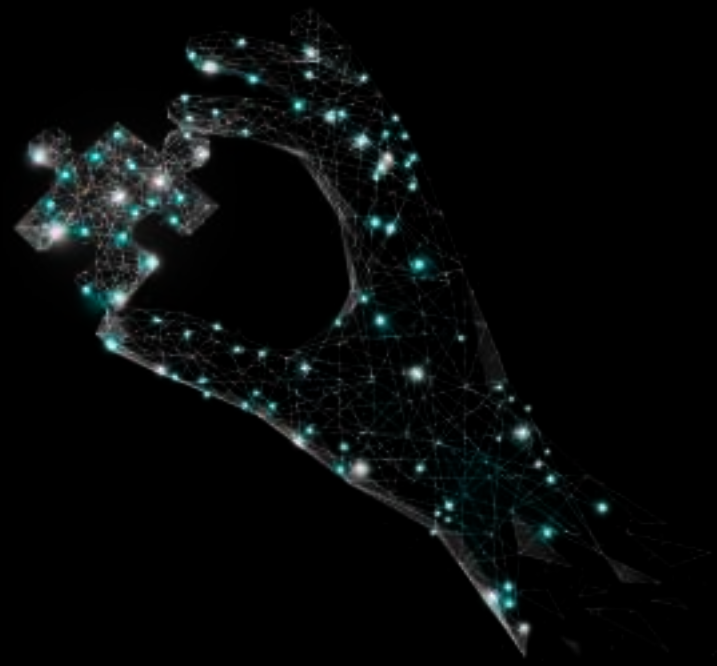
- Fireproof products
- Marine anti-corrosion products
- Anti-corrosion products
- Heat resistant products
- Long postsale service assurance

Fireproof products

Fireproof Products

Three unique features

- Nano ceramic fireproof board is the only product that meets the national A1 level test standard (smokeless, colorless, odorless)
- Nano ceramic cotton is the only product of its kind that can be used with 650° or -190°, while similar American Aspen products pulverize under 500°.
- Nano ceramic cotton has a service life of 20 to 30 years.



Fireproof products

Seven fireproof products

① Fireproof nano ceramic cotton
② Fireproof nano aerogel cotton
③ Preoxidized carbon fibre cotton
④ Fireproof nano aerogel board
⑤ Fireproof glue
⑥ Thick fireproof coating for steel structures
⑦ Transparent fireproof coating for wood

Fireproof products

Nano ceramic cotton

Code：EFH-M101001-M101008
Model：EF-M1100

Strengths

① High standard（A）
② High hydrophobicity
③ Extremely low heat conductivity
④ Service life 20 years

Specifications

① Meet A1 Standard by passing the strictest fire prevention requirements GBT20285-2006.
② Long service life at 650°C with shrinkage ≤1% and without melting, sintering and pulverization.
③ Hydrophobicity ≥96.5, volumetric absorptivity ≤0.5%, mass absorptivity ≤0.5%, absorptivity（total immersion）5%。
④ Anti-ageing with long-term ultraviolet radiation, good weatherability, and a service life of over 20 years.

Fireproof Products

Nano ceramic cotton

Code：EFH-M101001-M101008
Model：EF-M1100

Function	Makelucky data	Data of Conventional product	Strength
Fire prevention	Level A	Level A	Preventing fire
Heat insulation (conductivity)	0.018	0.04	Low conductivity
Temperature keeping	Thickness 1cm	Thickness 4-6cm	Thin
Hydrophobicity	96.5%	Absorbing water	Not absorbing water
Environmentally friendliness	Yes	Cancerogenic	Environmentally friendly

Fireproof products

Nano ceramic cotton

Code：EFH-M101001-M101008
Model：EF-M1100

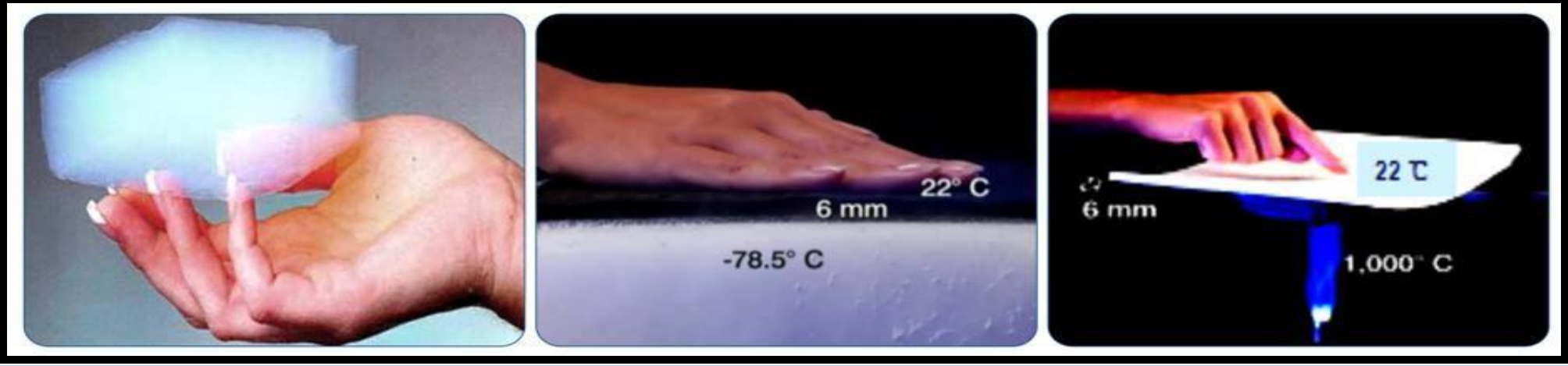
Function	Makelucky Data	Data of Conventional Product	Strength
Service life	More than 10 years	3–5 years	Long service life
Long time temperature tolerance	650 ℃	350 ℃	Long time tolerance of high temperature without pulverization
Short time temperature tolerance	1100 ℃ without naked fire	500 ℃	Short time tolerance of very high temperature

Fireproof products

Nono ceramic cotton

Code：EFH-M101001-M101008

Model：EF-M1100



1.very thin & light	High temperature tolerance： 2.unit weight 180kg/ m³	3.high hydrophobicity
High temperature tolerance	Low temperature tolerance	High temperature tolerance
Long time use at 650°C	Long time use at absolute zero -273°C	Working with1100⁰C without naked fire
good heat insulation	Good cold insulation	Low thermal conductivity

Fireproof products

Nano aerogel cotton

Code：EFH-M201001-M201004
Model：FH-T2100

Strength

① Low cost
② Cost effective
③ Long time use at 450°C
④ Good insulation
⑤ Thermal conductivity
0.020Wm-1K-1

Where it is used

- Oil / petrochemical pipelines;
  thickened oil pipelines;
- Various high-temperature furnaces; steam pipelines of power plants
- heat insulation for trains and automobiles
- LNG pipelines; liquid nitrogen tanks
- Building walls;
- Special electrical appliances;
- Fireman outfits and equipment

Fireproof products

Preoxidized carbon fibre cotton

Code：EFH-M203001-M203004
Model：FH-M2300

Strength

① Fireproof/ heat insulation/ hydrophobic
② Cost effective
③ Long time working at 350°C
④ Conductivity factor: 0.020Wm-1K-1

Fireproof products

Fireproof nano aerogel board

Code：EFH-B202001
Code：EFH-B202002
Model：FH-B2200

Strength

① Stronger insulation：2-5 times more efficient than conventional material
② Lighter & thinner：only one fifth thickness of conventional material

③ Hydrophobic：water unable to go through equipment surface；
④ Air permeable：steam able to go through

⑤ Can be easily cut into different shapes and installed
⑥ Environmentally friendly: inorganic materials with waste easily disposable

Fireproof products

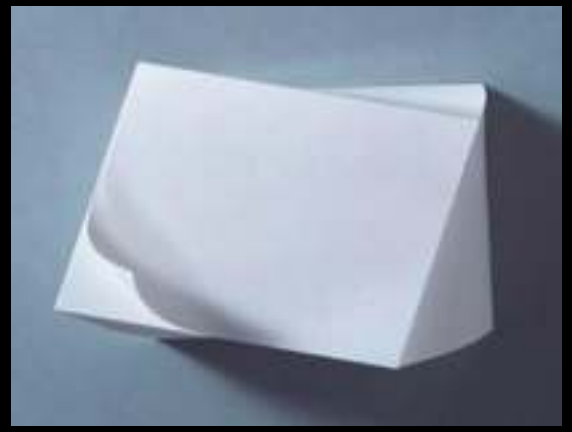
Fireproof nano aerogel board

Code：EFH-B202001
Code：EFH-B202002
Model：FH-B2200

Fireproof products

Fireproof glue

Code：EFH-J304001
Code：EFH-J304002
Model：FH-J3400



Strength

① Level A incombustible, 1000°C resistant
② Highly adhesive, non-toxic, harmless, water soluble, normal temperature cure, non-corrosive
③ Resistant to high temperature, low temperature, oil, radiation and ageing

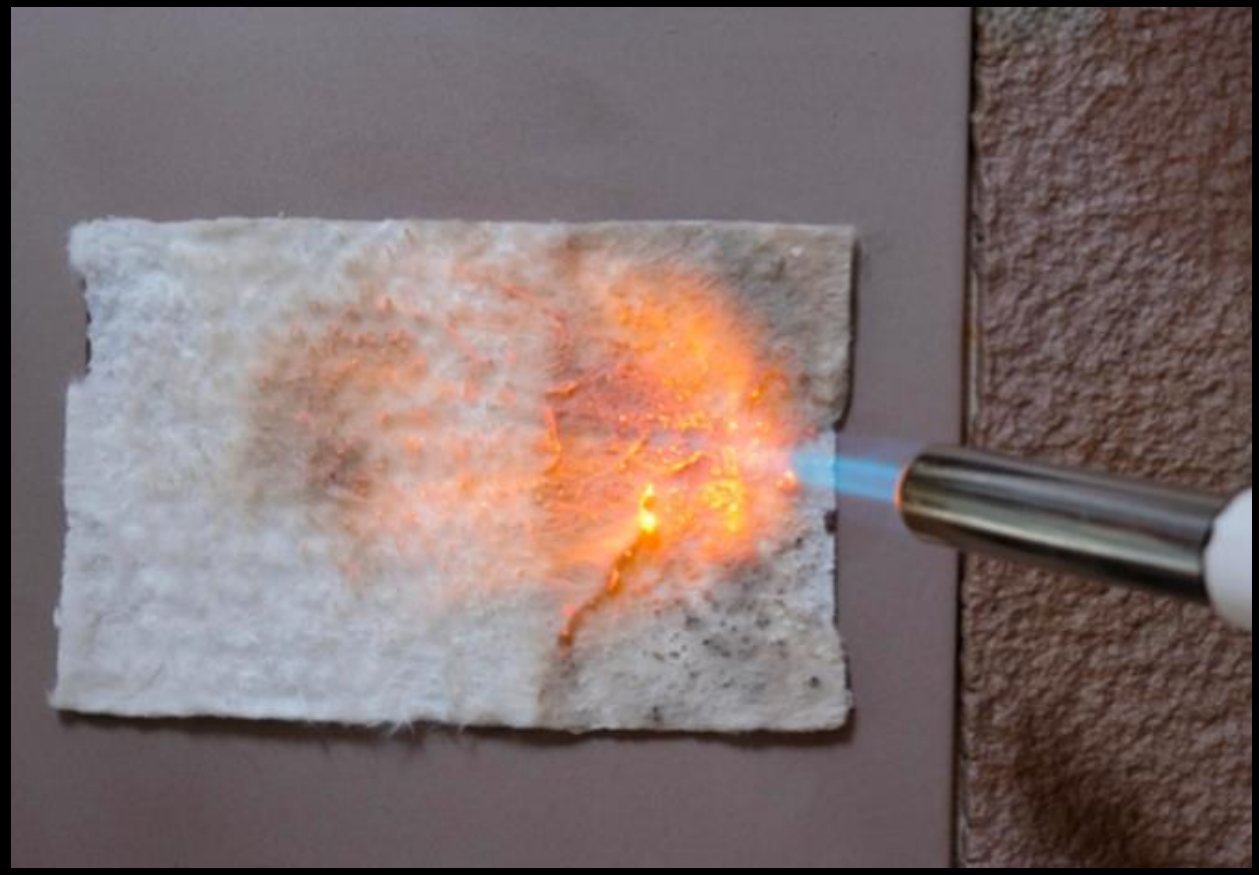
Fireproof products

Fireproof glue

Code：EFH-J304001
Code：EFH-J304002
Model：FH-J3400

Where it is used

① Casting
② paper
③ Inorganic fibre adhesion



Fireproof products

Steel structure thick coating

Code：EFH-T405001
Code：EFH-T405002
Model：FH-T4500

Strength

① 1 hr naked fire tolerance
② Good insulation for light inorganic materials
③ Applicable to：oil/petrochemical entities, refineries, high-speed railway stations, power plants、sports/exhibition spaces、airports, etc.

Fireproof products

Transparent coating for wood

Code：EFH-T507001
Code：EFH-T507002
Model：FH-T5700

Strength

① 24 min. naked fire tolerance
② Fireproof while making wood surface clear & smooth
③ Used in hotels, town halls, malls and hospitals, etc.

Where it can be used： **Forbidden City、temples、old villages and towns that are rare and unique heritage buildings of historic value**

Marine anti-corrosion products

Marine anti-corrosion products

Coating against ship bottom fouling

Code：EFW-T101001

Model：FW-T1100

Strength

① Prevent microbial growth and fouling on ship bottom foul for 5-8 years

② Fast drying and easy operation

③ Non-toxic & harmless

Used on :
ship bottoms, offshore oil platforms, wharfs, beacons, etc.

Marine anti-corrosion products

Ship bottom anti-biofouling coating

Code：EFW-T101001

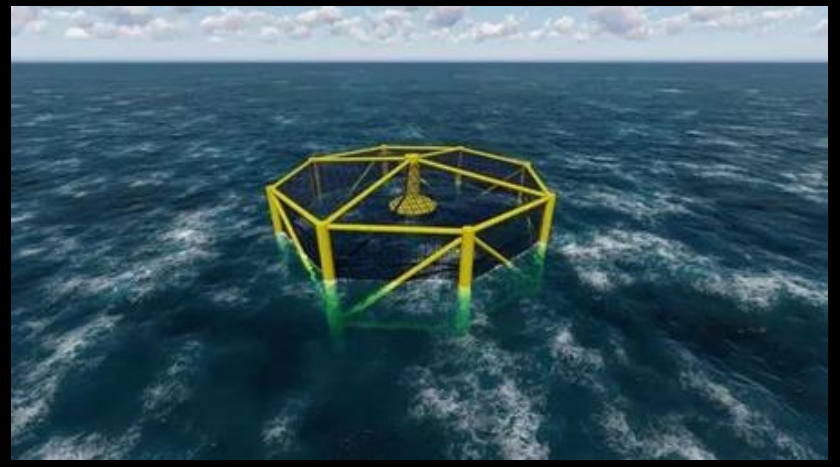
Model：FW-T1100

Marine anti-corrosion products

Anti-biofouling coating for oyster farming equipment

Code：EFW-T102001

Model：FW-T1200

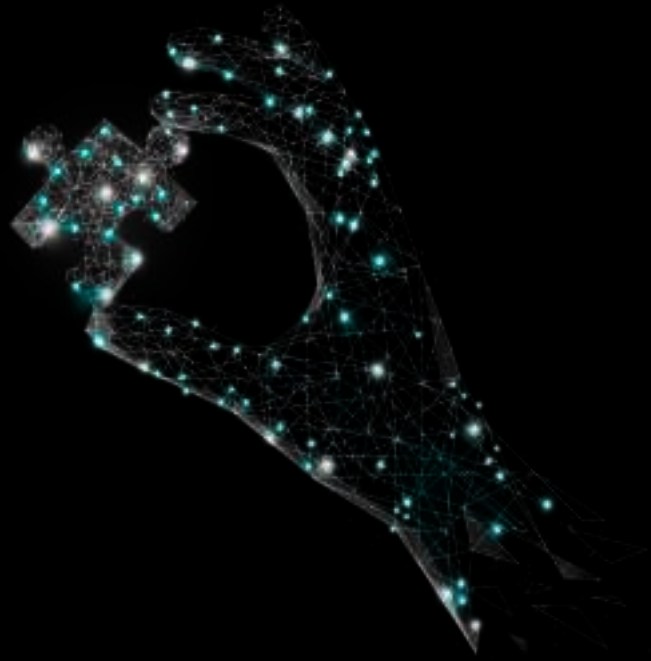


Anti-corrosion products

Anti-corrosion products

Three unique features

① Can be used on surface of derusting St1 grade
② 4,000 hours of corrosion prevention
③ No cracking, no scabbing and unable to be removed with a shovel at 1000 degrees Celsius



Anti-corrosion products

Anticorrosive and high temperature resistant coating

Code：EFF-Q908001
Model：FF-Q9800

Strength

① Heat tolerance（aluminium 450°C，steel 600°C，stainless steel 800°C，carbon steel 950-900°C）
② Good adhesion & anticorrosive
③ Good low/high temperature tolerance
④ Good weatherability & good radiation and abrasion resistance

Anti-corrosion products

Graphene anticorrosive coating

Code：EFF-T809001（water based）
Code：EFF-T809002（oil based）
Model：FF-T8900

Strength

① Salt test for over 3500 hours
② Higher than HG/T4759-2014 industry standard
③ Acid & alkali resistant, non-toxic & odorless
④ Water, oil and wear resistant
⑤ Tough

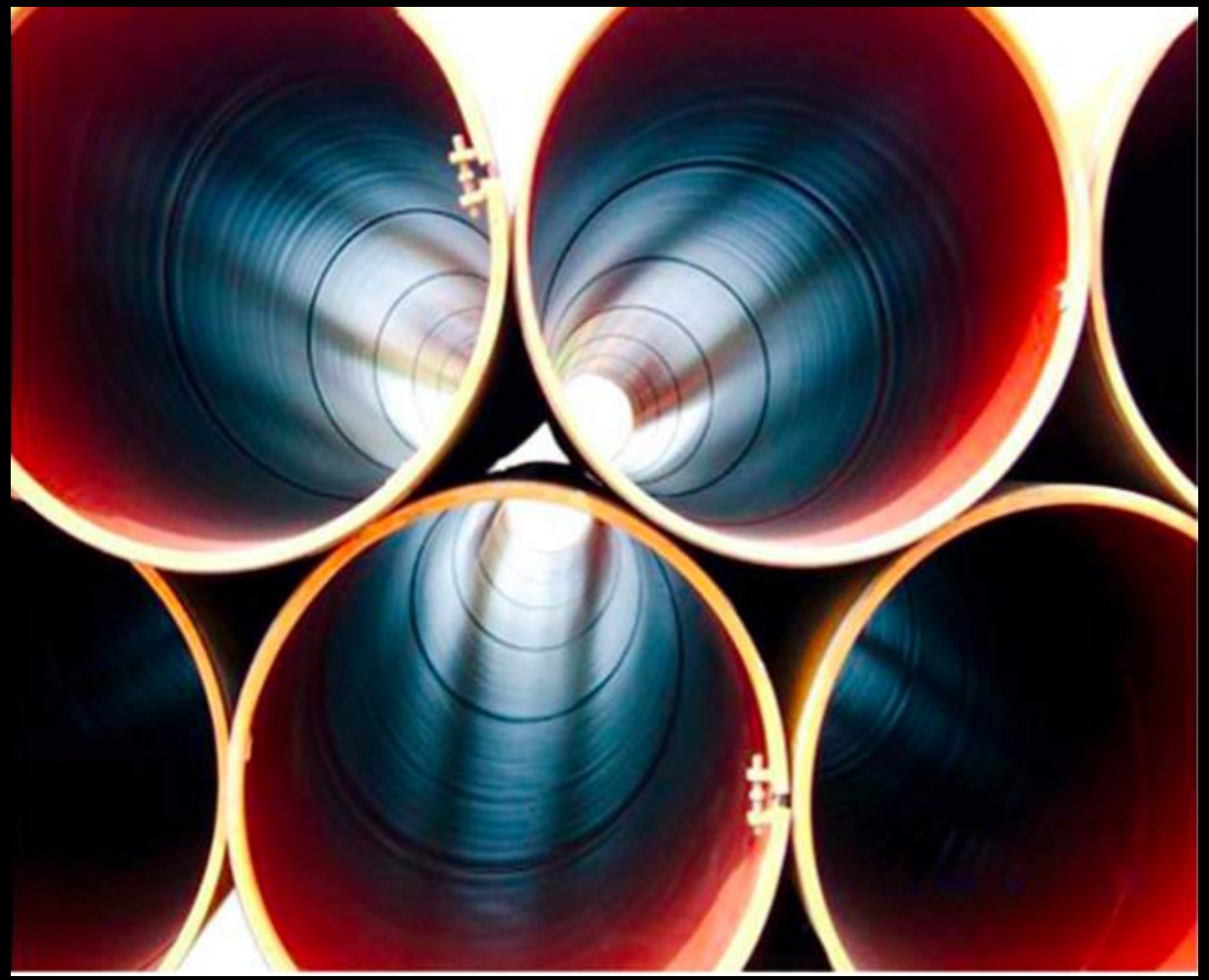
Anti-corrosion products

Graphene anticorrosive coating

Code：EFF-T809001（water based）
Code：EFF-T809002（oil based）
Model：FF-T8900

Where it is used

① Defense industry
② Petrochemical pipelines
③ Thickened oil pipelines
④ Power plant steam pipes
⑤ Cars for high-speed and metro trains



Anti-corrosion products

Oil based heavy duty anticorrosive coating

Code：EFF-T809003

Model：FF-T8900

Strength

① Meet 4000H test standard
② Heat tolerant（100°-200°C）
③ Low temperature resistant（-60°C）
④ Anti salt test, corrosion-proof & good weatherability
⑤ Easy to transport, store and operate

Heat Insulation Products

Heat insulation products

Two unique features

① Glass heat insulation coating can help reduce temperature by 8-12°C.

② Nano heat insulation coating can help reduce temperature by as much as 30°C.

Heat insulation products

Transparent glass heat insulation coating

Code：EGR-T609001
Code ： EGR-T609002
Model：GR-T6900

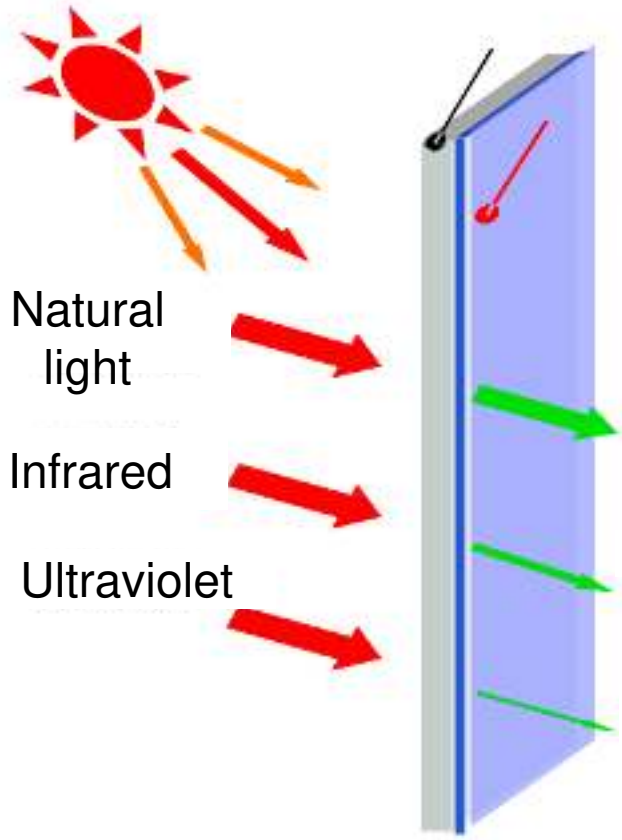
Strength

① Reduce temperature by 8°C-12°C。
② Prevent light pollution by avoiding reflection
③ Transparent/good weatherability
④ Anti-ageing/long service life
⑤ Insulation film not affected by sealant & needing no post maintenance

Heat insulation products

Transparent glass heat insulation coating

Code：EGR-T609001
Code：EGR-T609002
Model：GR-T6900



6mm glass

Transparent heat film
（厚度7～9μm） thickness

Light transmission
75%

Infrared transmission
15%

Ultraviolet transmission
5%

Light transmission 75% - 80%

85% - 90% infrared rejected

90% - 95% ultraviolet rejected

Shading coefficient 0.39 – 0.65

Quality guarantee 10 years

Heat insulation products

Nano ceramic water based heat insulation coating

Code：EGR-T105001
Model：GR-T1500

Strength

① Summer heat reduction 15-25°C。
② B1 level fireproofness
③ No VOC
④ Able to be used widely
⑤ Corrosion, water and radiation resistant

Heat insulation products

Water-based nano ceramic heat insulation coating

Code：EGR-T105001

Model：GR-T1500

Where it is used

① Civil buildings, recreation vehicles
② Large warehouses、refrigerated trucks
③ Prefab houses、exhibition space
④ Airport facilities、train stations
⑤ Tents、defense/aerospace industries
⑥ Oil tanks, ships

Heat insulation products

Nano aerogel heat insulation coating

Code：EGR-T208001-T208003
Model：GR-T2800

Features

① Fireproof and heat-proof
② Strong adhesion, low conductivity
③ Fast drying, low shrinkage
④ No cracking after drying

Makelucky

Protect life, civilization and the earth

Thank you