

# **SILKROAD**

**Rare Earth & Thermal Insulated Tech**



# THIS IS A MIRACLE **RARE-EARTH TECH** **HEAT INSULATION MATERIAL**

Originate from Military Industry:  
Stealth fighters use Rare earth material coating to absorb wave.

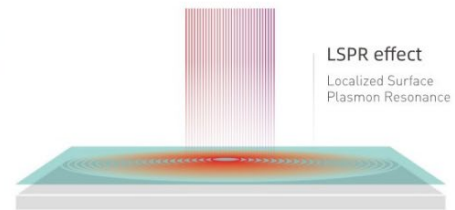


TECHNOLOGICAL REVOLUTION AND SUBVERT TRADITION

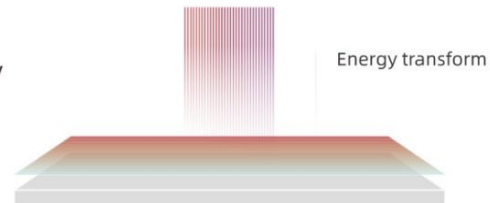
# Principle of heat insulation

BY RARE-EARTH ELEMENTS

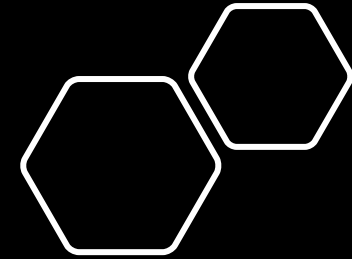
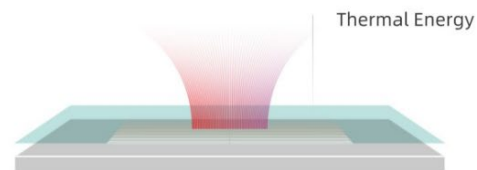
Plasma Resonance Effect between  
Near-Infrared Radiation Wave and  
Surface of Rare Earth Coating



Radiant of Heat Energy is  
converted to Physical Heat Energy

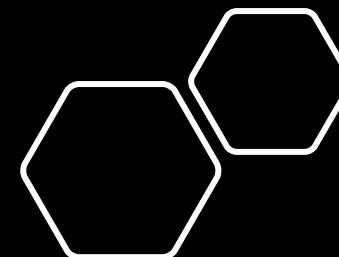


Heat Energy is carried away by  
Air Convection, achieve to lower  
the temperature.



01

Product Name  
**Heat Insulation Glass Coating**



**Best Heat Insulation Effect!  
Bring Cool Feeling and  
Energy Saving!**

1098 TIMES  
Testing of Product Formula

37 KINDS  
of Special Nano  
Metal for Absorb Spectrum

>95%  
Shield UV&IR From Solar and  
Heat Insulation

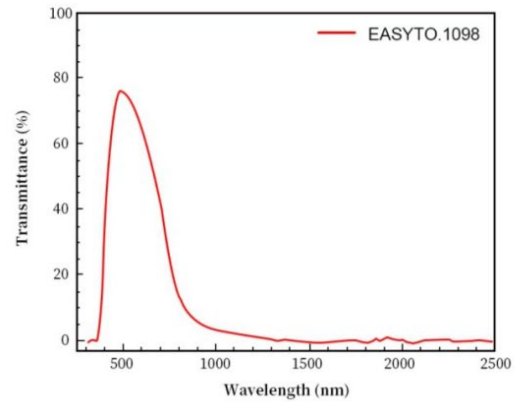
# Parameter

Heat Insulation Glass Coating

UV Rejected	99%	IR Rejected	>90%
Visible Light Transparency	70%	Solar Direct Projection Barrier	75%
Operation Method	Brush, Spraying	Solidify Time	48 Hours
Hardness	7H~9H	Service Life	30 Years

## Features

Heat Insulation Glass Coating



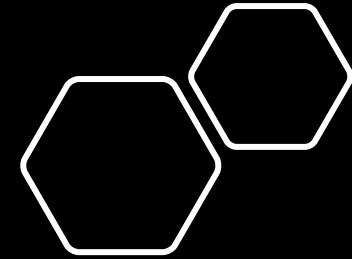
- Selective shield light wave, only block strong ultraviolet & near infrared (95%), and keep high visible light transmittance (70%).
- Heat insulation and preservation, feel cooling in summer and keep warm in winter.
- Super stable performance and anti-aging, 30 years of service life.
- Outdoor application is available.

## Application

Heat Insulation Glass Coating



- Heat insulation upgrade for building glass.
- Heat insulation upgrade for other transparent material, like film, plastic sheet etc.



02

Product Name

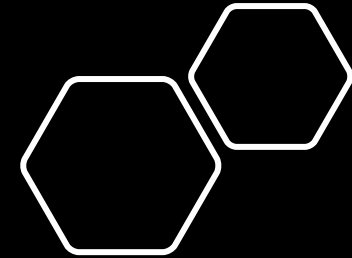
**Solar Control PVB Interlayer**



## **Best Heat Insulation PVB Interlayer**

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Due to apply rare-earth PVB interlayer,  
Make the laminated glass have excellent  
thermal barrier performance!  
And safety is same as other laminated glass!





# Parameter

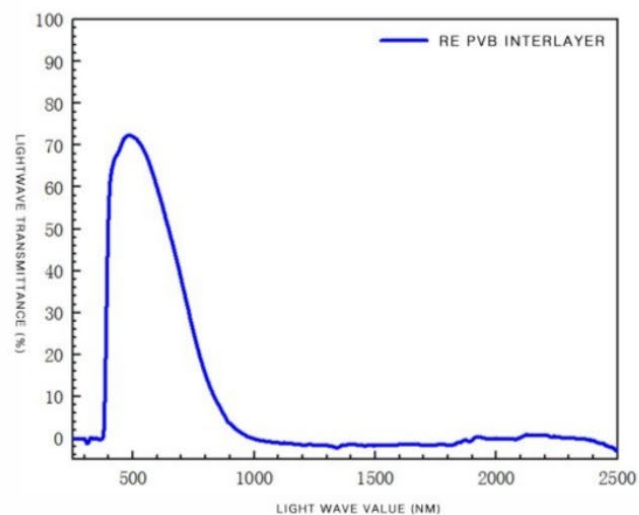
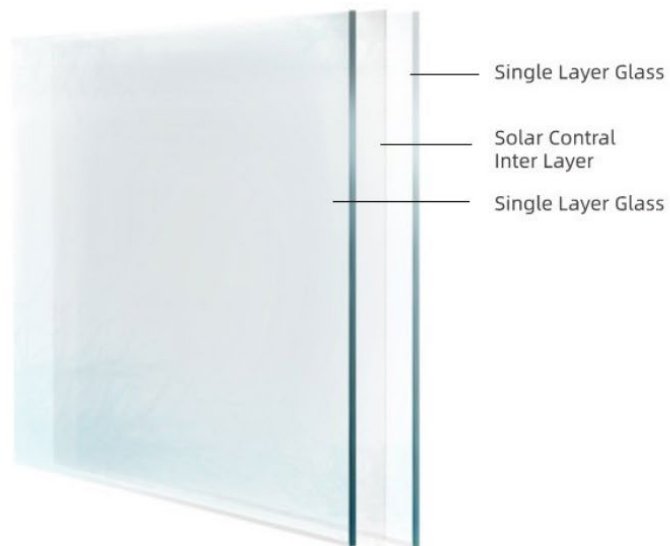
Solar control PVB interlayer

EASYTO.1653			
UV Rejected	99.99%	IR Rejected	97.5%
VLT	70%	Haze	0.5%
EASYTO.1653R (Sunlight Color Change Type)			
UV Rejected	99.99%	IR Rejected	99.8%
VLT	15%~60%	Haze	0.5%

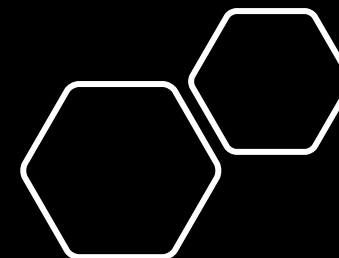


# | Features

## Solar Control PVB Interlayer



- The world's leading rare earth material technology makes laminated glass with excellent thermal insulation performance;
- It has the same sound insulation, explosion-proof and safety functions as other PVB interlayers;
- Super long service life and stability, product performance does not decay after long-term use;
- The newest product PVB sunlight color change interlayer, makes the visible light transmittance of the laminated glass automatically change with the intensity of UV irradiation: when the UV rays are stronger, the visible light transmittance decreases, and brings a better heat insulation effect and cool feeling.



# | Application

Solar Control PVB Interlayer

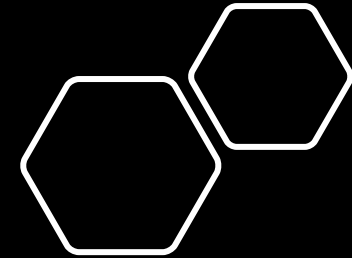
Glass Roof: Sunlight Color Change Solar  
Control PVB Interlayer 1653R



Glass Curtain Wall:  
Solar Control PVB Interlayer 1653

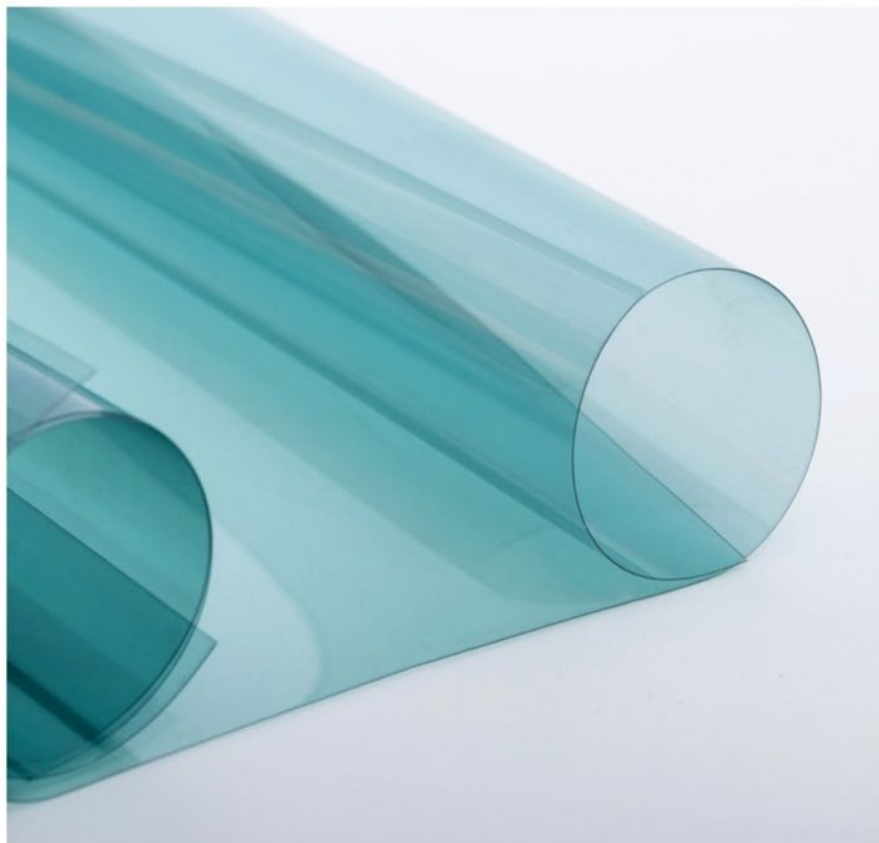


- Glass Curtain Wall
- Low reflection glass
- Door and window glass
- Special glass that needs thermal insulation properties



03

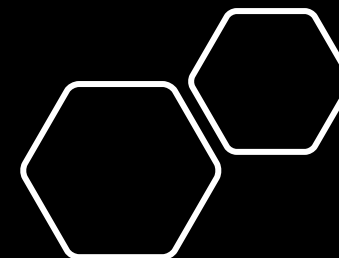
Product Name  
**Solar Windows Film**



## True Solar Control Rare-earth Windows Film

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As a new challenger, we bring a new way  
and technology to solve the problem:  
keep high result of heat insulation and  
long term service life!



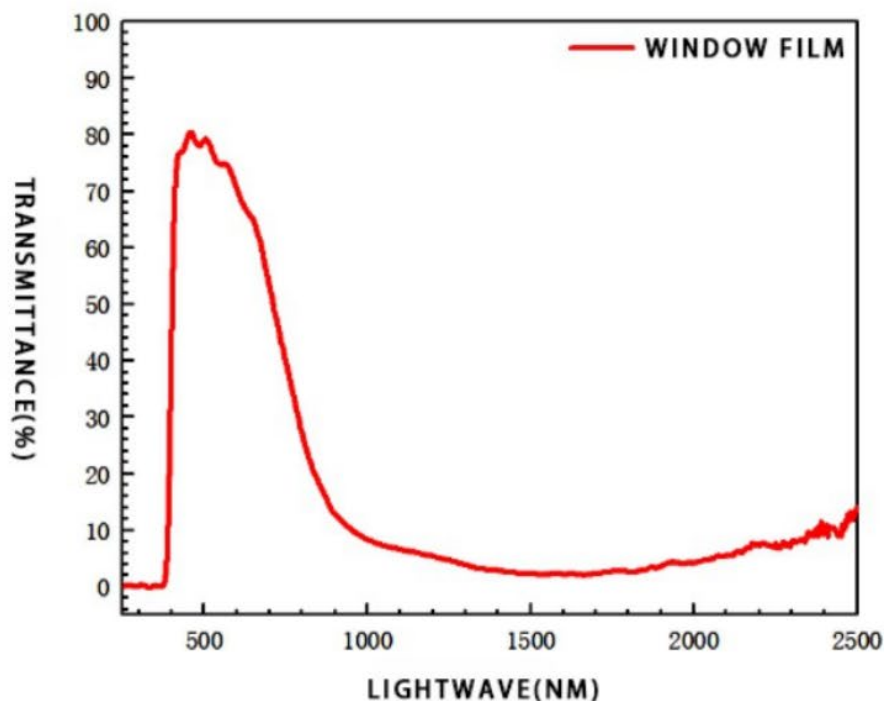
# Parameter

Solar Windows Film

Model	IRR	UVR	VLT	Thickness	Remark
Ci 70	95±2%	99%	72±2%	2.0 mil	
Ci 35R	95±2%	99%	15-35±2%	2.5 mil	Sunlight color change type
Ai 70	95±2%	99%	72%	2.0 mil	
Ai 35R	95±2%	99%	15-35±2%	2.5 mil	Sunlight color change type

# Features

Solar Windows Film

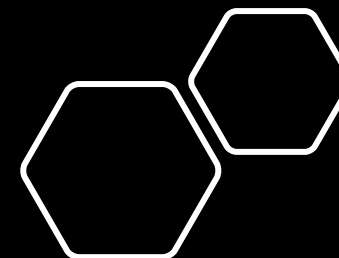


- Super heat insulation effect, the product has a 95% near-infrared blocking rate, and full-frequency blocking in the 780-2500nm band;
- Due to use rare-earth elements with wave crest characteristics (nano-scale), making communication signals such as 5G unimpeded;
- Using rare-earth light-transforming materials, some of our products have smart color change effects. Makes the visible light transmittance of the windows film automatically change with the intensity of UV irradiation: when the UV rays are stronger, the visible light transmittance decreases, and brings a better heat insulation effect and cool feeling.
- Cooler down more than 10 degrees celsius.



04

Product Name  
**Thermal Barrier Coating**



## 30 Degrees Of Temperature Difference!

Innovative new technology: the perfect combination of light reflection and thermal barrier, bringing excellent thermal insulation effect

# Parameter

Thermal Barrier Coating

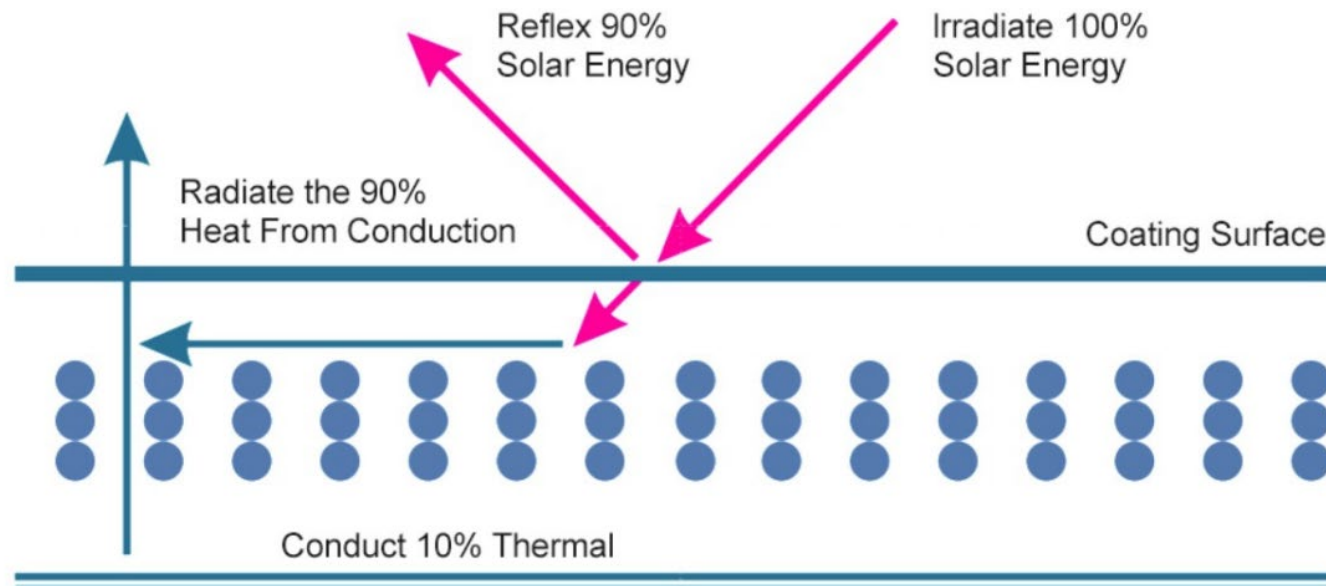
IR Reflection	93%	Solar Reflection	86%
Hemispheric Emissivity	88%	Application Temperature	8-80°C
High Adhesion	Yes	Anti-Aging	Yes
Alkali Resistance	Yes	Fireproof	Yes
Water Resistance	Yes	Drying Time	1 Hour
Material Type	Water-Based Paint	Service Life	10 Years

Note\*: Fireproof function need purchase and replace other type of layer B, to make our coating can prevent 1400°C flame burning.

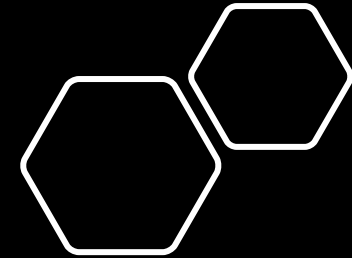


# | Features

Thermal Barrier Coating



- Excellent thermal insulation performance, which can be applied to all kinds of metal surfaces. After use, the thermal insulation effect can reach up to 30 degrees;
- Extraordinary stability, with anti pollution, anti UV, anti rust and anti weathering ability, with a service life of 10 years;
- Thermal barrier layer can block external heat and save more than 60% of air conditioning maximum energy consumption;
- Safe, non-toxic and environment-friendly, free of heavy metals, formaldehyde and other harmful substances;



# | Application

Thermal Barrier Coating



Containers (Includes special temperature requirements)  
Oil Storage Tanks  
Grain Storage Tanks  
Oil And Gas Pipelines  
Metal Roof Buildings  
etc

05

Product Name

## Hang-Film Hollow Glass



### TWO SIDES OF GLASS, WINTER & SUMMER

3 Layers 2 cavities, do not increase glass weight, 4 results

Prevent Sunburn

Break Heat

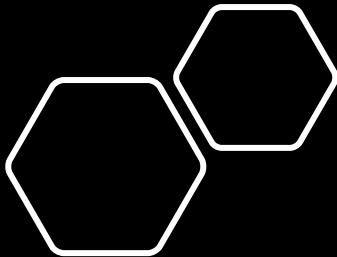
Keep Temperature

Absorb Noise

# Best thermal Barrier Glass Technology in the World

A transparent rare-earth film hang inside hollow glass.  
150°C difference between indoor and outdoor of glass side.  
Super mute effect and absorb noise by rare-earth film.

PARAMETER			
UV transmittance	0.2%	Visible Light Transmittance	22%
Visible Light Reflectance	16%	Shading Coefficient	0.18
Heat Transfer Coefficient	1.0 W/(m2*k)	Direct Sunlight Transmittance	10%
Direct Sunlight Reflectance	25%	Direct Sunlight Absorption Ratio	65%
Test Glass Model	Hang-Film Hollow Glass(5LOW-E+12A+0.08+12A+5 mm, 90% Argon content)		





# APPLICATION

