Explosion-proof / Keep warm / Energy saving/ anti-UV /
Visible Light Transmittance/ heat insulation

TAIWAN ENERGY SAVING FILM COMPANY

We only Focus on Glass Heat Insulation for 30 years.

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For more than 30 years, we are focus in glass insulation.

For more than 30 years, we are only focus on one thing, that is glass heat insulation. About 8 years ago, we put on our Energy Saving Film sign board, many people laugh us and said "the film is window film, why you said the film is Energy Saving Film". But now, everyone always said that they have Energy Saving Film, because of visible light transmittance is important for architecture. Visible light transmittance is the value of architecture. However, car is more concentrate on the privacy. Energy Saving Film is high visible light transmittance and heat insulation. If people apply the car window film in the room, or use the curtain to block the heat, it all makes the room darker and people need to open the light to make the room brighter at daytime. It wastes electronic power and not energy saving. Base on this situation, Energy Saving Film is the best choice as we will keep the visible light transmittance, and block the infrared (the main heat source) more than 95%, cut more than 99% of the UV (the light cause darkening the skin).

Technology is progressing, you can sell the cow and drink the milk now. Taiwan Energy Saving Film Company is designed for architecture market, not only the existing building but also the new building. We have provide laminated glass, laminated insulating glass, and film adhesive on glass. Also, it is important to help people understand that we need to take care of SC value, not U value, especially in the tropical countries. Therefore, we have a new concept of Low R Glass, it shows the Low E glass is not suitable for tropical countries. We are looking forward to your agreement and advice.

For the improvement of existing building glass insulating, and against direct radiation from the sun(first radiation), we provide the following transparent and insulated energy-saving film series.

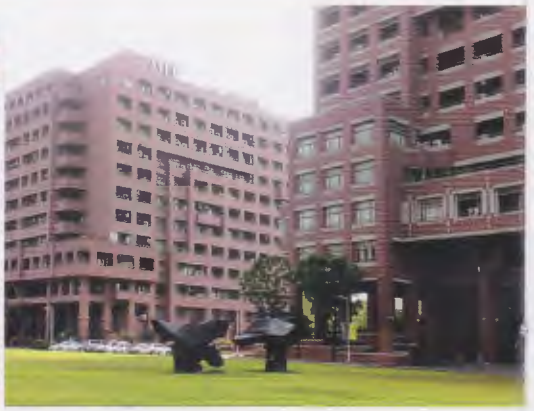
1.With install service : There are two choices, one is interior film, the other is exterior film. Our professional sales and well trained technician will provide the install service.

2.DIY : Reusable material, static cling DIY product is the product which customer can "Do It Yourself"

Building example

NDL (National Nano Device Laboratories)

Taichung Moncoeur



National Cheng Kung University Department of Electrical Engineering

Metrology and Inspection (BSMI)

EVERLIGHT ELECTRONICS CO., LTD., Bureau of Standards

Tainan City government

McDonald's in Huwei

Taiwan Sing Po Security Co. Ltd

Soochow University

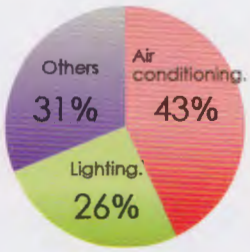
7-11

UNIQLO

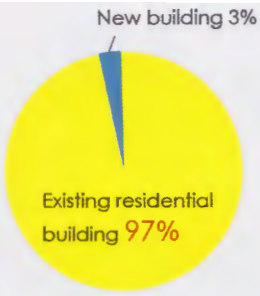
National Cheng Kung University Hospital

Reduce carbon dioxide and energy saving: Start from our house.

There are 40% of the world's total energy consumption which come from building energy consumes and release of greenhouse gases. Therefore, energy saving is everyone's responsibility. Within the building market, 97% of building is existing building and it will be the most important areas for improvement. The best solution for energy saving is applying Energy Saving Film. As Energy Saving Film has high visible light which able to maintain good indoor lighting and clear vision, and blocking over 90% of infrared, reduce the radiation enter the building. It can help to slow the operation of air-condition compressor as less heat enter the building. Energy Saving Film can also block 99% ultraviolet and extend the lifetime of floor and furnitures.

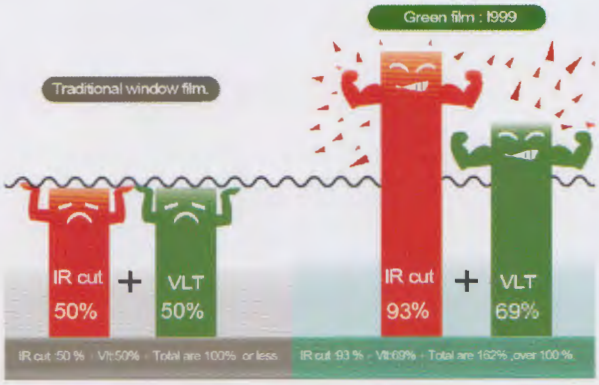


Electricity consumption in building.



The proportion of old and new buildings

The total electricity usage within building, 26% from lighting, 43% from air-conditioning, it's about 70% electricity consumption for most of the residential building. The building shell design effects these two parts of the electricity consumption significant. As the life of the building shell is much longer than air conditioning and lighting equipment, so that a well design building can achieve the goal of energy saving. It must lower the absorb of radiation, decrease the air-conditioning, and reduce the quantities of lamp to enhance the efficiency of building energy use. The main reason for the impact of these two electricity consumption is the introduction of solar heat radiation and the demand of visible light. Normally, the heat come from the building opening area, so the window glass heat insulation and lighting becomes very important.



The MOJO 100 is talking about once traditional window film have 30% of the heat insulation, the visible light is never over 70%. If the heat insulation is 50%, the visible light is never over 50%. It means, if people want block more heat, the visible light must be less. However, our G Film can achieve 93% of heat insulation and visible light up to 69%, total is 162%, over the limitation of MOJO 100. These makes our G Film are superior to tradition window films.

The comparison between before and after installation of Green film

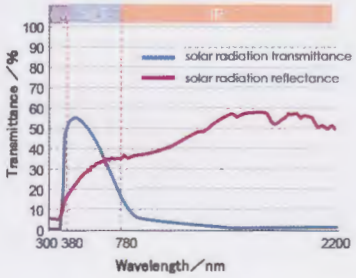
	Clear glass		After installation of Green Film	
VLT	45%	Normally people will install curtains after the transparent glass, and the room will be dark and need to turn on the lights. Turn on the lights during the day time also increase the heat source through the lights. The Sunlight directly on the curtain fabric, the radiation also caused the indoor heat source, cannot save the energy.	45% ⬇ 30%	Excellent lighting, no need to use lighting on daytime. Visible light accounts for 45% of solar energy, it is also a heat source. Generally in the sun, the light up to 77000lux, if the window use rate over 25% , it is recommended to use a darker film to reduce visible light heat.
IR	50%	Infrared ray is the main heat source, 54% of the infrared penetration rate, caused the compressor running faster, cannot save the energy.	50% ⬇ 4%	Heat source down, the compressor slows down, extention the life of air-conditioning. Save the energy . The film can solve the radiation problem.
UV	5%	UV is the culprit of the destruction of material, transparent glass had 70% of the UV penetration, shorten the furniture's life , cannot save the energy.	5% ⬇ 0.01%	UV is destructive light waves, is the culprit of the destruction of material, less than 1% of the UV penetration, increase the furniture's life ten times, saving. Energy. Using green film can lower down the UV to 0.1% .

Infrared Reflective Film MG-H50

SC : 0.38
VLT : 48%
I R : 4%
UV< 2%

visible light transmittance : 48%
visible light reflectance : 26%
solar radiation transmittance : 22%
UV transmittance < 2%
Infrared direct transmittance : 4%
SC : 0.38
LSG : 1.45

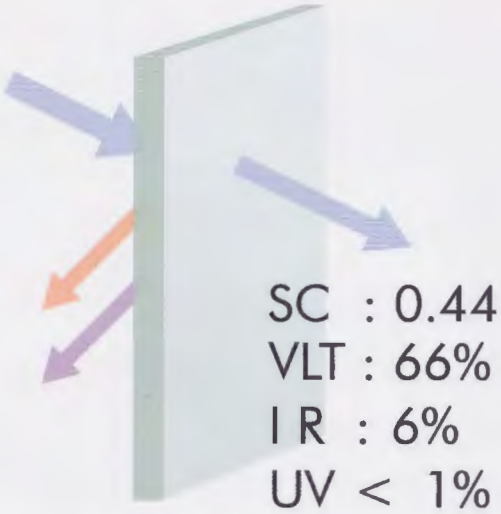
Daylight Penetration Spectrum



Infrared Reflective Film Insulation Principle:

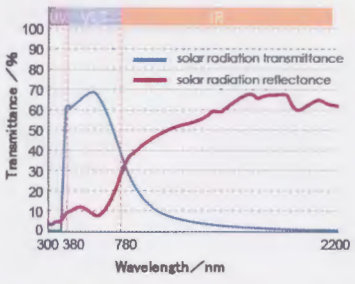
Infrared does not transmit, do not absorb, but reflect, only reflect can down the glass surface temperature to the lowest, as the glass surface temperature is not high, so the second heat radiation will

Infrared Reflective Film MG-H70



visible light transmittance : **66%**
visible light reflectance : **11%**
solar radiation transmittance : **30%**
UV transmittance < **1%**
Infrared direct transmittance : **6%**
SC : **0.44**
LSG : **1.71**

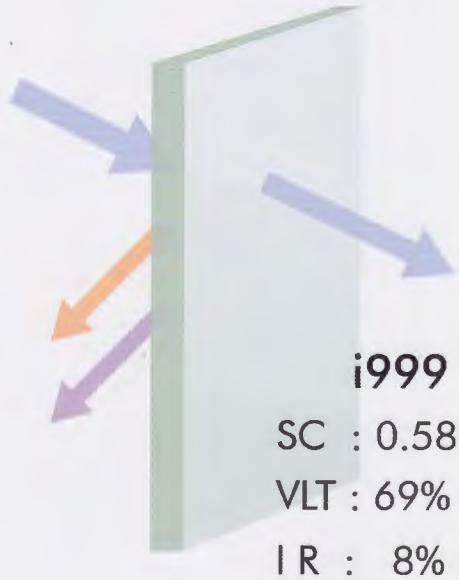
Daylight Penetration Spectrum



Infrared Reflective Film Insulation Principle:

Infrared does not transmit, do not absorb, but reflect, only reflect can down the glass surface temperature to the lowest, as the glass surface temperature is not high, so the second heat radiation will come down with it, the simplest date can show the information on

NANO ENERGY SAVING FILM i999



i999

SC : 0.58

VLT : 69%

I R : 8%

UV < 1%

i999

visible light transmittance : 69%

visible light reflectance : 3%

solar radiation transmittance : 33%

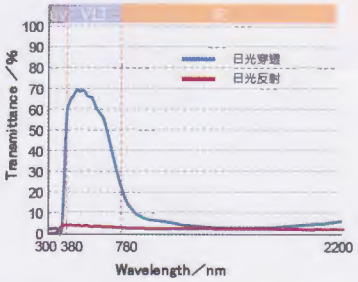
UV transmittance < 1%

Infrared direct transmittance : 8%

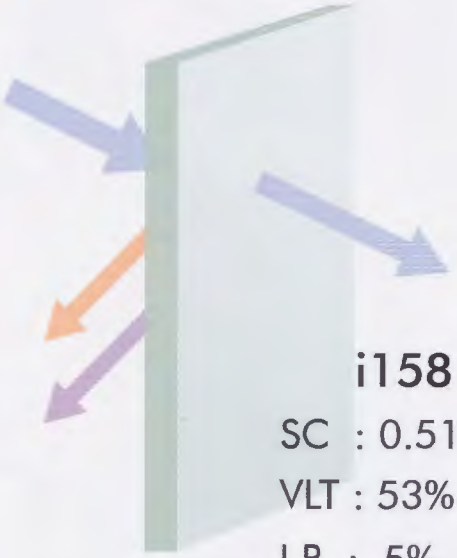
SC : 0.58

LSG : 1.35

Daylight Penetration Spectrum



NANO ENERGY SAVING FILM i158



i158

SC : 0.51

VLT : 53%

IR : 5%

UV < 1%

i158

visible light transmittance : 53%

visible light reflectance : 3%

solar radiation transmittance : 25%

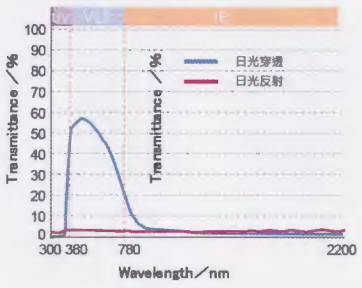
UV transmittance < 1%

Infrared direct transmittance : 5%

SC : 0.51

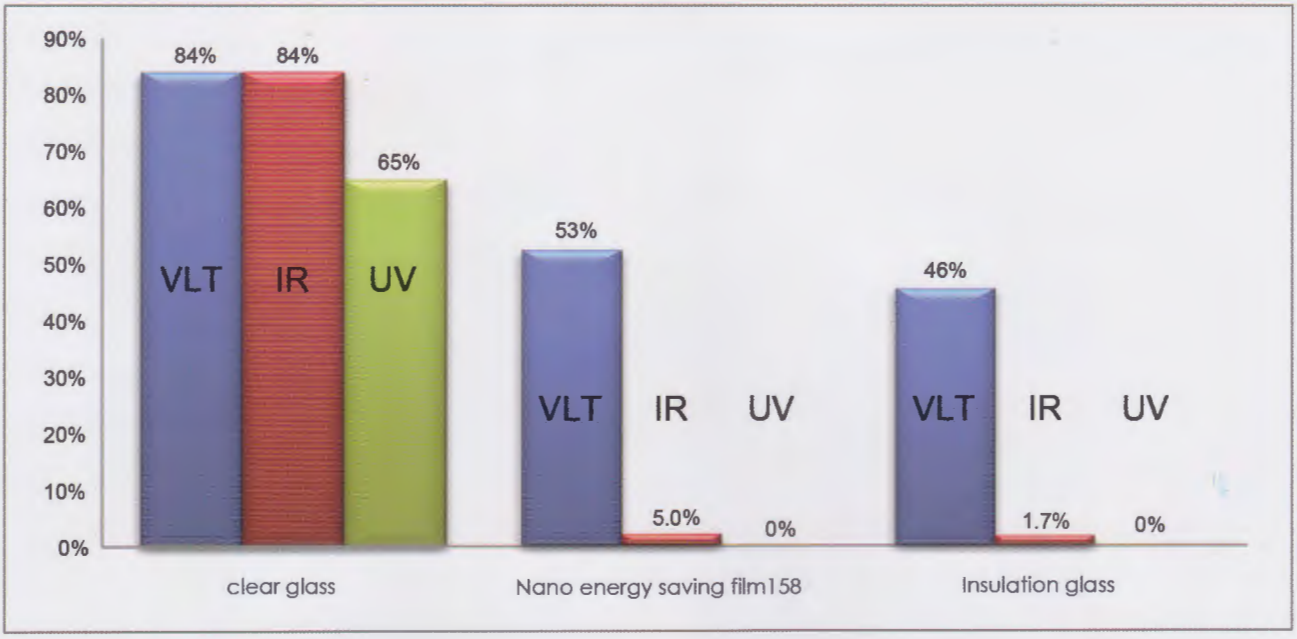
LSG : 1.19

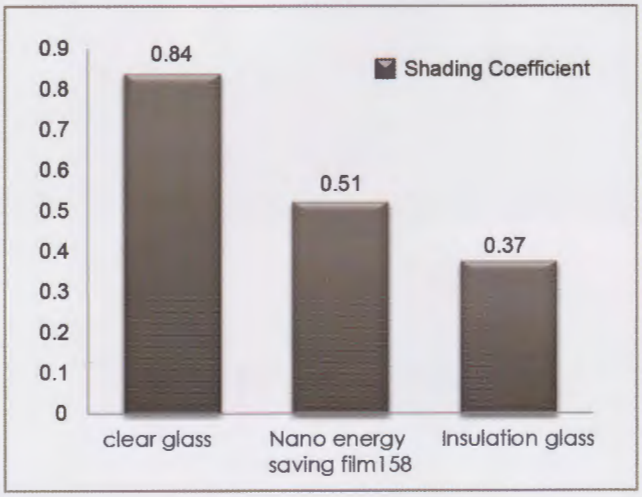
Daylight Penetration Spectrum

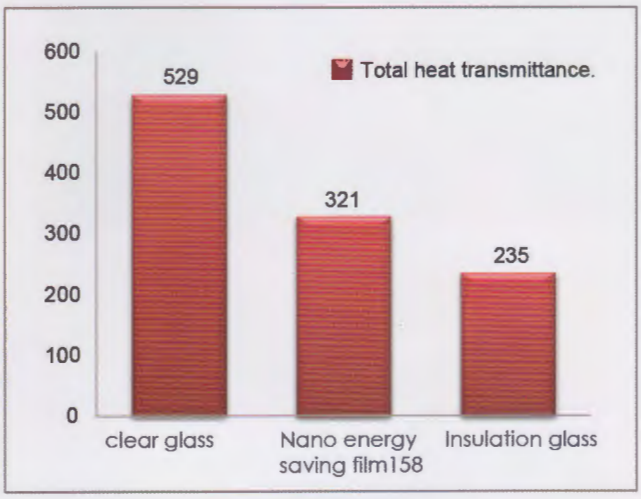


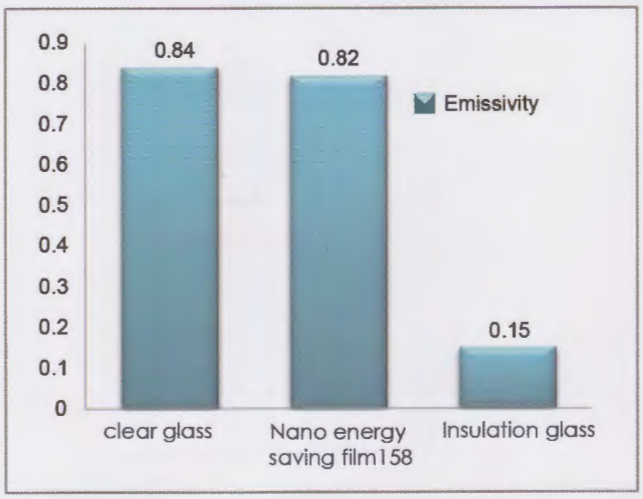
NANO ENERGY SAVING FILM i158

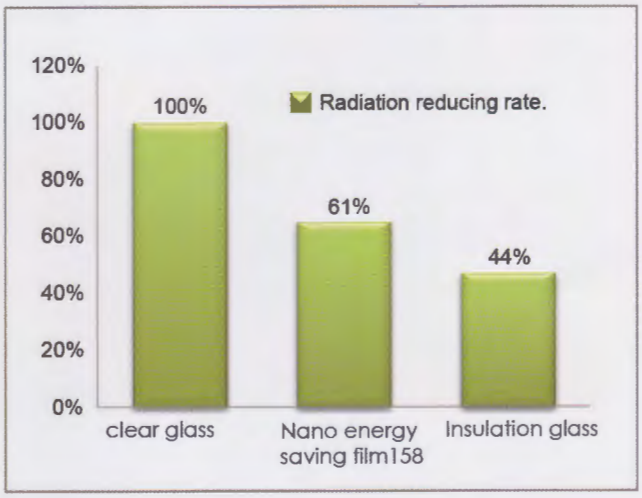
Wave transmittance comparision











NANO ENERGY SAVING FILM i138

i138

SC : 0.43

VLT : 33%

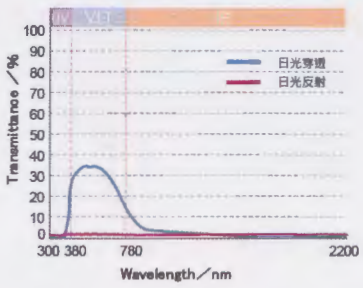
I R : 3%

UV < 1%

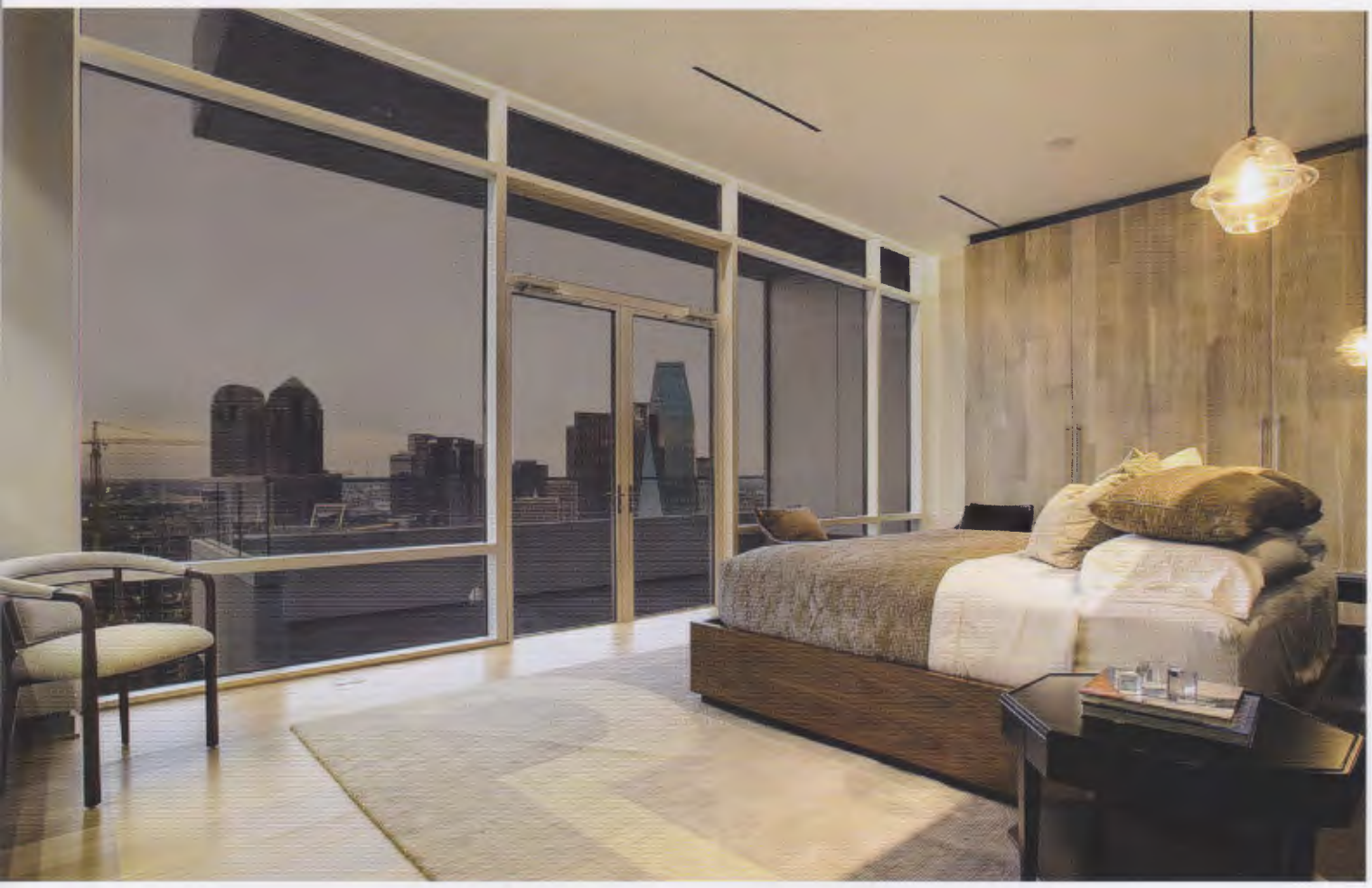
i138

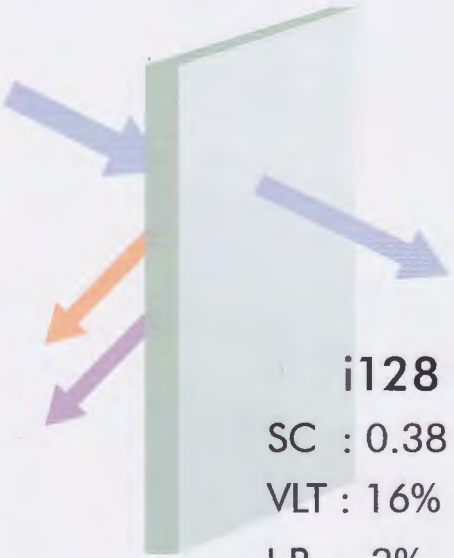
visible light transmittance :	33%
visible light reflectance :	3%
solar radiation transmittance :	16%
UV transmittance <	1%
Infrared direct transmittance :	3%
SC :	0.43
LSG :	0.77

Daylight Penetration Spectrum



NANO ENERGY SAVING FILM i128/i118

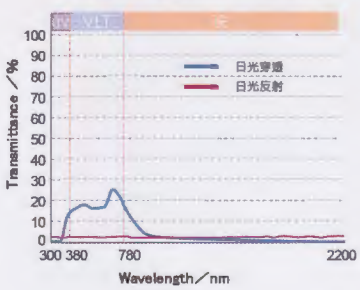




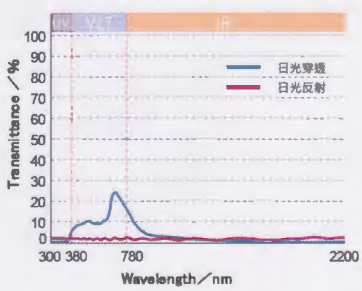
	i128	i118
visible light transmittance :	16%	10%
visible light reflectance :	2%	2%
solar radiation transmittance :	10%	9%
UV transmittance <	1%	0%
Infrared direct transmittance :	3%	5%
SC :	0.38	0.36
LSG :	0.48	0.31

i128	i118
SC : 0.38	0.36
VLT : 16%	10%
IR : 3%	5%
UV < 1%	0%

Daylight Penetration Spectrum



Daylight Penetration Spectrum



Reflective Film

R990

visible light transmittance : 9%

UV transmittance < 1%

Infrared direct transmittance : 9%

View from indoor.

View from Outside.

R930

visible light transmittance : 18%

UV transmittance < 1%

Infrared direct transmittance : 12%

View from indoor.

View from Outside.

R700

visible light transmittance : 28%

UV transmittance < 1%

Infrared direct transmittance : 29%

View from indoor.

View from Outside.

Sticking films in Summer and collect in Winter, reusable !

Removable Static Cling Window Film

T73 High transparent model

visible light transmittance : 73%

UV transmittance < 0%

Infrared direct transmittance : 14%

SC : 0.67

Blocking more than 80% of the infrared heat source, and keep most of the light, suitable for people who need a lot of lighting and heat insulated, saving the air and lighting electricity!

C23 high privacy model

visible light transmittance : 22%

UV transmittance < 4%

Infrared direct transmittance : 45%

SC : 0.57

Suitable for the need to shield the privacy of space, reduce the heating and cooling the energy costs, reduce UV damage to the skin , reduce the aging and fading of furniture and house decorating.

C10 high privacy model

visible light transmittance : 13%

UV transmittance < 3%

Infrared direct transmittance : 38%

SC : 0.58

Suitable for the need to shield the privacy of space, reduce the heating and cooling the energy costs, reduce UV damage to the skin , reduce the aging and fading of furniture and house decorating.

C05 high privacy model

visible light transmittance : 7%

UV transmittance < 2%

Infrared direct transmittance : 33%

SC : 0.46

Suitable for the need to shield the privacy of space, reduce the heating and cooling the energy costs, reduce UV damage to the skin , reduce the aging and fading of furniture and house decorating.