

Conservatory Performance Film

The addition of a conservatory to a residential or commercial property should add a pleasant ambience with a view to enhancing our lifestyle.



But sometimes living with a conservatory can actually be a problem. As any owner of a conservatory can tell you, there are a number of drawbacks:

- All too often the conservatory becomes too hot in summer months when the sun shines, rendering it more or less unusable
- Glare from the sun makes the room uncomfortable to use
- Ultraviolet rays can fade fabrics and furniture

Inherent within the design of conservatories are large spans of glazing which, while allowing users to enjoy the benefits of sunshine, can also increase the unwanted and sometimes unpleasant effects of excessive heat and glare. Ideally conservatories should be an additional living space that can be used in comfort all year round if they are to be of real value and provide a good return on the initial investment.

Material blinds are the traditional approach taken to deal with these problems, but they can be expensive, they require periodic cleaning and maintenance, and they can substantially affect the visible light levels within the conservatory. For many people this goes against everything a conservatory stands for - excellent visibility to view the garden and surroundings.



There is an alternative. LLumar performance films are technically-advanced solar control films that present a very cost-effective, unobtrusive and permanent solution. They require no maintenance other than normal window cleaning, and they effectively and efficiently address the issues of solar gain glare and UV protection whilst allowing visible light to pass through.

LLumar solar control performance films can reject as much as 79% of unwanted solar energy (which can mean a heat gain reduction of 71%), reduce solar glare by 83% and block out 99% of harmful UV rays. The use of LLumar performance film in a conservatory can typically reduce internal temperatures by as much as 6-8°C.

LLumar film comes in a range of finishes. Tinted film will subtly transform the appearance of the conservatory, while reflective films will give a more dramatic look. Or minimise the impact with neutral film, which will blend into carefully planned designs and colour schemes. LLumar performance window film is the right choice for your conservatory.

LLumar window films from CPFilms

The range of LLumar window films can be fitted to existing glass or windows to create a simple, cost-effective solution to most of the problems associated with 'ordinary' glass. LLumar films are all manufactured from an advanced, optically-clear micro-thin polyester. Each one is designed and developed for its special performance characteristics. They are finished with a patented scratch-resistant coating that is extremely tough and durable, and is superior to any other scratch resistant coatings currently available.

Professionally installed by a network of Approved Installers, the films are warranted against peeling and cracking by CPFilms, the world's largest window films manufacturer.

Film Technical Specifications

Film Name	Film Code	Colour	Visual Characteristics	SHGR	TSER	GR	UVLT	VLT
R20 Silver	R20 SR HPR	Dark Silver	Reflective	71%	79%	83%	1% max	15%
Vista 14 Neutral*	V14 SR CDF	Dark Neutral	Dual-reflective	68%	78%	87%	1% max	12%
Sputtered Bronze 20 CDF*	N1020 BSR CDF	Dark Bronze	Semi-reflective	68%	77%	78%	1% max	19%
Sputtered Copper 20*	N1020SB SR HPR	Dark Copper	Semi-reflective	63%	73%	75%	1% max	22%
Neutral Hi-Performance Silver	N35AG SR HPR	Neutral	Reflective	59%	68%	63%	1% max	33%
R35 Silver	R35 SR HPR	Medium Silver	Reflective	59%	68%	68%	1% max	28%
Vista 28 Neutral*	V28 SR CDF	Medium Neutral	Dual-reflective	57%	65%	70%	1% max	27%
Sputtered Bronze 35 CDF	N1035SB CDF	Medium Bronze	Semi-reflective	55%	62%	58%	1% max	37%
Sputtered Copper 35	N1035SB SR HPR	Medium Copper	Semi-reflective	55%	65%	61%	1% max	34%
Vista 38 Neutral*	V38 SR CDF	Light Neutral	Dual-reflective	50%	56%	58%	1% max	37%
Vista Spectra Select	VS60 SR CDF	Very Light Neutral	Clear View	49%	58%	37%	1% max	58%
Sputtered Neutral 20*	N1020 SR CDF	Dark Neutral	Semi-reflective	43%	63%	73%	1% max	24%
Sputtered Neutral 35*	N1035 SR CDF	Medium Neutral	Semi-reflective	42%	52%	60%	1% max	35%

Note: The above films are only a selection from the LLumar range of products that provide solar protection.

SHGR = Solar Heat Gain Reduction **TSER** = Total Solar Energy Rejected
GR = Glare Reduction **UVLT** = Ultraviolet Transmission
VLT = Visible Light Transmission

*Glass-to-film compatibility

When selecting the correct LLumar performance film in terms of aesthetics and performance, it is important to check that the film you select is compatible with the glazing construction system used in your conservatory. Contact a LLumar-approved installer or the CPFilms Technical Helpline for details.

Thermal comfort

The addition of a conservatory is also used within the commercial environment as an aesthetically-pleasing structure that can offer 'lifestyle' benefits to its users. However, research has shown that in air temperatures of 24°C, productivity and



concentration reduces by up to 50%, and as the temperatures rises above 25°C, occupants become more vulnerable to accidents and their performance declines. In addition, there is more likelihood that as temperatures rise, occupants can get 'hot under the collar'.

The Workplace (Health, Safety and Welfare) Regulations 1992 stipulate that all indoor workplaces must have moderate temperatures and that all reasonable steps must be taken to ensure temperatures are maintained at a minimum of 16°C in offices. 'Comfortable' temperatures are between 19 and 24°C, and hot weather comfort is recognised as 24°C or below. The duty to comply is the employer's.

Glare can also be a real problem particularly in offices and where VDU monitors are used. As a result of European Directive 89/654/EEC, the employer is required to reduce glare under the Display Screen Equipment Legislation. The correct application of LLumar solar protection performance films can efficiently and cost-effectively solve these problems - with minimal disruption to the occupants - whilst allowing light to filter into the office. If you have a conservatory, you may need to ensure that the structure provides satisfactory thermal comfort to its occupants - can you afford to be without LLumar solar protection performance films?

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