

Product Benefits

- 3M™ Automotive Window Film Crystalline™ Series rejects up to 64% of the total solar energy coming through vehicle windows
- Proprietary, multilayer optical film with nano-technology, comprised of over 200 layers
- Blocks up to 99.9% of UV light
- Infrared energy rejection of up to 68% through vehicle windows
- Charcoal tinting
- Non-metalized film to avoid interfering with electronics, satellite radio, GPS, and mobile devices including 5G devices
- Earned the Skin Cancer Foundation's Seal of Recommendation
- Limited lifetime warranty, see the [3M™ Automotive Window Film Warranty Card](#) for complete details

CAUTION

Although certain 3M™ Window Films help block a percentage of UVA and UVB radiation and may have received The Skin Cancer Foundation Seal of Recommendation, the efficacy of these films in protecting against skin cancer has NOT been tested by 3M and 3M™ WINDOW FILMS DO NOT PREVENT SKIN CANCER.

Film Characteristics

These are the typical values for unprocessed product. Processing may change the values.

Physical Characteristics

NOTE

The following technical information and data should be considered representative or typical only and should not be used for specification purposes.

Table A. Physical Characteristics

Characteristic	Value
Material	Polyester
Color	Charcoal
Thickness	Film: 2 mil (50.8 µm) Liner: 0.9 mil (22.9 µm)
Adhesive	Acrylic, pressure sensitive
Adhesive Appearance	Clear
Liner	Polyester

Typical Solar Properties

Table B. Solar Properties on Auto 75 Glass*

Film	Visible Light Transmission	Visible Light Reflectance Exterior	Visible Light Reflectance Interior	UV Block	Total Solar Energy Rejected	Glare Reduction	Infrared Energy Rejection (IRER) [†]	Infrared Rejection (IRR) [‡]
Auto 75 Glass (No film)	73%	7%	7%	67.0%	42%	N/A	N/A	N/A
CR BLK 30	29%	6%	6%	99.9%	61%	61%	68%	98%
CR BLK 35	33%	6%	5%	99.9%	60%	55%	67%	98%
CR BLK 40	41%	6%	6%	99.9%	58%	44%	67%	98%
CR BLK 50	48%	7%	7%	99.9%	56%	34%	68%	98%
CR BLK 60	57%	7%	7%	99.9%	54%	22%	67%	97%
CR BLK 70	64%	8%	7%	99.9%	51%	13%	65%	97%
CR BLK 80	72%	8%	7%	99.9%	45%	2%	59%	95%

* Data shown is the estimated performance of film applied to 1/4 in. (6 mm) thick, 73% VLT automotive green glass and testing is in accordance to ANSI/NFRC 200 Procedure. Data is for reference only.

† IRER - Percent of solar infrared energy that is rejected over the wavelength range from 780 nm to 2,500 nm. IRER takes into account the transmitted and absorbed IR energy that will be reradiated into a car. Data shown is for the performance of the film applied to glass.

‡ IRR - Percent of solar infrared energy in the 900 nm to 1,000 nm wavelength range that is rejected by the film. Measurement is made of film with liner alone (i.e. no glass).

Table C. Solar Properties on 6mm Clear Glass**

Film	Visible Light Transmission	Visible Light Reflectance Exterior	Visible Light Reflectance Interior	UV Block	Total Solar Energy Rejected	Glare Reduction	Infrared Energy Rejection (IRER) [†]	Infrared Rejection (IRR) [‡]
6 mm Clear Glass (No film)	89%	9%	8%	34.00%	19%	N/A	N/A	N/A
CR BLK 30	35%	7%	7%	99.9%	59%	61%	70%	98%
CR BLK 35	40%	6%	6%	99.9%	57%	55%	69%	98%
CR BLK 40	50%	7%	7%	99.9%	54%	44%	68%	98%
CR BLK 50	59%	7%	8%	99.9%	52%	34%	69%	98%
CR BLK 60	69%	8%	9%	99.8%	49%	22%	68%	97%
CR BLK 70	78%	9%	9%	99.8%	43%	12%	63%	97%
CR BLK 80	88%	9%	9%	99.8%	32%	1%	48%	95%

** Data is comparable to current auto industry method using a clear 89% VLT glass, and testing is in accordance to ANSI/NFRC 200 Procedure.

† IRER - Percent of solar infrared energy that is rejected over the wavelength range from 780 nm to 2,500 nm. IRER takes into account the transmitted and absorbed IR energy that will be reradiated into a car. Data shown is for the performance of the film applied to glass.

‡ IRR - Percent of solar infrared energy in the 900 nm to 1,000 nm wavelength range that is rejected by the film. Measurement is made of film with liner alone (i.e. no glass).

Application Characteristics

NOTE

All installations should be conducted by a professional installer.

Table D. Application Characteristics

Characteristic	Value
Application Method	Wet only
Substrate Types	Glass

Maintenance and Cleaning

- Commercially available neutral glass cleaners can be used on the product as long as they do not contain any abrasives.
- Do NOT affix tapes, suction, cups, stickers, etc. to the window film surface.
- Do NOT use knives, scrapers, brushes, or abrasive cleaning materials on the window film.
- Do NOT rub vigorously or apply heavy pressure to the window.

Shelf Life and Storage

Shelf Life

The shelf life is an indicative and maximum data, subject to many external and non-controllable factors. It may NEVER be interpreted as a warranty. The 3M recommended shelf life for the film is 5 years.

Storage Conditions

3M recommends storage conditions of 60°F to 85°F (16°C to 30°C), out of sunlight, in the original container, and in a clean and dry area.

Removal

3M recommends using a steamer to aid removal. The correct angle of removal is 90 degrees from the surface of the window.

Health and Safety

Tools and Equipment Usage

When using any equipment, always follow the manufacturer's instructions for safe operation.

Chemicals

When handling any chemical products, read the manufacturers' container labels and the Safety Data Sheets (SDS) for important health, safety, and environmental information.

[Follow this link to obtain SDS sheets for 3M products.](#)

[Follow this link to obtain information about substances of very high concern \(SVHC\) for EU products.](#)

Warranty Information

Technical Information

Technical information, guidance, and other statements provided by 3M are based upon records, tests, or experience that 3M believes to be reliable, but the accuracy, completeness, and representative nature of such information is not guaranteed. Such information is intended for people with knowledge and technical skills sufficient to assess and apply their own informed judgment to the information. No license to any intellectual property rights is granted or implied with respect to this technical information.

Product Selection and Use

Many factors beyond 3M's control and uniquely within user's knowledge and control can affect the use and performance of a 3M product in a particular application. Customer is solely responsible for evaluating the product and determining whether it is appropriate and suitable for customer's application, including conducting a workplace hazard assessment, reviewing all applicable regulations and standards, and reviewing the product label and use instructions. Failure to properly evaluate, select, and use a 3M product in accordance with instructions or to meet all applicable safety regulations may result in injury, sickness, death, and/or harm to property.

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Unless a different warranty is specifically stated on the applicable 3M product packaging or product literature (in which case such warranty governs), 3M warrants that each 3M product meets the applicable 3M product specification at the time 3M ships the product. **3M MAKES NO OTHER WARRANTIES OR CONDITIONS, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY WARRANTY OR CONDITION OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR ARISING OUT OF A COURSE OF DEALING, CUSTOM, OR USAGE OF TRADE.** If a 3M product does not conform to this warranty, the sole and exclusive remedy is, at 3M's option, replacement of the 3M product or refund of the purchase price.

Limitation of Liability

Except for the limited remedy stated above, and except to the extent prohibited by law, 3M will not be liable for any loss or damage arising from or related to the 3M product, whether direct, indirect, special, incidental, or consequential (including, but not limited to, lost profits or business opportunity), regardless of the legal or equitable theory asserted, including, but not limited to, warranty, contract, negligence, or strict liability.

Commercial Branding and Transportation

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