# Renewable Energy Division 3M<sup>™</sup> Color Stable Automotive Window Film



## 3M<sup>™</sup> Color Stable Automotive Window Film

- Nano-carbon heat gain reduction technology
- Protect vehicle occupants from uncomfortable heat and glare •
- Sun Protection Factor of over 100 •
- Reduce reliance on air conditioning reducing fuel consumption



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#### Description

The Color Stable Series is a range of films consisting of 3M's patented, non-metalised nanocarbon polyester. This technology allows the films to retain their pigment integrity and never fade. The unique manufacturing process provides for maximum heat rejection while boasting a neutral black colour with low reflectivity. Additionally, the films block almost the entire amount of UVA and UVB rays which are the main cause of fading and skin damage.

- Colour stable, never fade tinting technology
- Non-metalised for no communications or network interference
- Customise vehicles with tinted glass aesthetics
- Solar energy rejection stabilises in-car temperature
- Optimal temperatures make vehicle occupants feel more comfortable
- Feel secure with privacy from the outside world

#### Application

The Color Stable Series is intended for use on the inside surface of vehicle windows. The Color Stable Series also has features that allow the installers to smooth the film to the glass with fewer wrinkles and bubbles, providing the car owner with a high quality application. 3M Automotive Window Film is to be professionally applied by skilled, well-trained, 3M authorised installers. Windows can be considered operational after 24 hours.

#### **Physical Properties**

Thickness (CS 5) Thickness (all others) Colour Film material Adhesive Top coating 0.045mm/ 45µm 0.035mm/ 35µm Black to slightly tinted Nano-carbon polyester Permanent, pressure sensitive acrylic Abrasive resistant hard coat

#### Cleaning

3M Automotive Window Films may be cleaned 14 days after installation using ordinary automotive window cleaning agents and avoiding the use of abrasive particles. Do not use rough sponges, cloths or brushes. Synthetic sponges, soft wipes or rubber squeegee cleaners are recommended.

#### Shelf Life

To ensure the longest shelf life possible, be sure to store the film according to the guidelines given in each box. Recommended storage conditions for all films are  $21^{\circ}$ C and 40 - 50 % relative humidity. Films should be kept in the original packaging and not exposed to heat, light or relative humidity above 50%. When stored according to these recommendations, a shelf life of at least 5 years can be expected.

| Film Type<br>on 6mm Glass | Visible Light<br>Transmitted | Visible Light<br>Reflected | Total Solar<br>Energy Rejected | Heat Gain<br>Reduction | UV Rejection | Glare Reduction |
|---------------------------|------------------------------|----------------------------|--------------------------------|------------------------|--------------|-----------------|
| No film                   | 89%                          | 8%                         | 19%                            | N/A                    | 38%          | N/A             |
| CS 5                      | 9%                           | 5%                         | 57%                            | 47%                    | 99%          | 90%             |
| CS 20                     | 19%                          | 5%                         | 51%                            | 39%                    | 99%          | 79%             |
| CS 35                     | 39%                          | 5%                         | 40%                            | 27%                    | 98%          | 56%             |
| CS 50                     | 52%                          | 5%                         | 35%                            | 20%                    | 98%          | 42%             |

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