



Here are some facts to help you make a 3M Brand Window Film™ purchasing decision

ADHESIVE SYSTEM:

A window film can only be as good as its adhesive system. And for nearly 102 years, nobody has been better at adhesives than 3M. 3M invented Scotch™ Brand Tapes and only 3M Window Films have an adhesive developed by 3M specifically for the demands of window film. **This exclusive acrylic adhesive system** combines the advantages of many core technologies within 3M. The end result is a clean, easy installation, excellent impact and glass holding resistance, and no bubbling, blistering, puckering or wrinkling. 3M's pressure sensitive adhesive forms a mechanical bond to the glass, which is easily removed at the end of its useful life, as opposed to the chemical bond used by some manufacturers. A chemical bond goes into the pores of the glass and is difficult and costly to remove. 3M developed this high bond film adhesive to insure that it does not add any visible distortion to the glass. **The adhesive is so unique that 3M was able to gain patent protection.** 3M's adhesive used in our Window films will give you distortion-free performance long after 'cheaper' films have aged and deteriorated.



UV INHIBITORS:

3M's technological superiority enables us to place the UV inhibitors in the adhesive. No other film manufacturer can put the inhibitors in their adhesive. By installing 3M Brand Window films 99% of the UV rays from the Sun are **blocked directly at the surface of the glass.** The adhesive

system in 3M Brand Window Films is unaffected by the UV rays over the lifetime of the Window Film. This means that the adhesive does not turn brittle, flake or take on a yellow appearance. Competitor's have to buy their adhesives from outside adhesive companies. In their product the UV inhibitors are sandwiched between the adhesive and first layer of polyester. Many, if not most, of our competitors experience adhesive failure first. Therefore, after several years the adhesive can turn yellow and begin to bubble and flake on the window.

ABRASION RESISTANCE:

3M Abrasion Resistant Technology allows us to apply a much more durable hard coat than the competition. This abrasion resistant coating prevents the film from scratching or de-metalizing when the film is bumped, touched, or cleaned. Competitive hard coats are very thin and you can easily scratch through the hard coat and through to the metal with a fingernail. Tested according to ASTM-1044 Standard Method of Test for Resistance of Transparent Plastics to Surface Abrasion the 3M Abrasion Resistant Coating has been proven to be 6 to 10 times harder than coatings on "cheaper films". Additionally, some films that have an abrasion resistant coating adhered directly to the metal show significant iridescence.

PRODUCT TESTING:

In addition to ASTM-1044, 3M has used state of the art testing facilities to assure 3M Brand Window film quality. A Spectrophotometer is used to calculate and monitor film performance. Film is tested in a Weatherometer, which is a large oven with an intense light source that accelerates natural weathering. Prolonged testing assures long-term film durability, color stability, adhesive performance, and resistance to metallic corrosion and maintenance of performance characteristics. The tests performed are published by the American Society for Testing and Materials (ASTM) and are listed below:

1. ASTM E-308 Standard Recommended Practice for Spectra-Photometry and Description of Color in CIE1931 (this is an indicator of luminous reflection and visibility).

2. ASTM-424- Standard Methods of Test for Solar Energy Transmittance and Reflectance of Sheet Materials.
3. ASTM G-90 Standard Practice for Performing Accelerated Outdoor Weatherizing for Non-Metallic Materials Using Concentrated Natural Light.

In addition, testing was performed by an Independent Laboratory within 3M that included accelerated aging artificially for 2,000 hours (5-6 years) and weatherometers simulating solar energy humidity, heat, etc. plus outdoor environment testing in Florida and Arizona.

4. ASTM E-84 Flammability is always a concern for commercial and residential structures. 3M Scotchtint™ Window Film meets the requirements for a Class A Interior Finish for building Materials for both Flame Spread Index and Smoke Developed Values per ASTM E-84.

WARRANTY:

3M provides the most comprehensive warranty coverage in the industry and the warranty is a solemn agreement between 3M and you. 3M's financial strength provides you with the assurance that we will be around to honor our commitments. Many of our competitors, *several owned by foreign-based companies*, have not even been in business for more than 5 years, or have been bought and sold numerous times over the last decade!

Some companies may offer a longer warranty but are limited in the more costly removal and reapplication labor, especially when removing the 'permanent chemical bond' of the CDF adhesive system. In the event that 3M film is found to be defective, the film will be replaced at no charge to the customer. This includes the labor cost of removal and reapplication free of charge. **In addition, the 3M Warranty offers one of the only warranties in the industry that does not exclude ammonia as a cleaning agent.**



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