

Here are some facts to help you make a 3M<sup>TM</sup> 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<sup>TM</sup> 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 the many core technologies of 3M. The end result is a clean and 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 makes film removal easy – unlike our competitors' film. 3M developed this high bond adhesive to ensure that it does not add any visible distortion to the glass. The adhesive is so unique that 3M was able to gain patent protection. The 3M 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 it to place the UV inhibitors in the adhesive. No other film manufacturer has the technology to do so. 3M window films block 99% of the UV rays from the sun are blocked directly at the surface of the glass. The adhesive system in 3M window films is unaffected by the UV rays over the product's lifetime. This means that the adhesive does not brittle, flake, or yellow. Competitors have to buy their adhesives from outside adhesive companies. In their products the UV inhibitors are sandwiched between the adhesive and first layer of polyester. Many, if not most, of our competitors' products experience adhesive failure. Therefore, after several years the adhesive can yellow and/or begin to bubble and flake on the window.

# **ABRASION-RESISTANCE:**

3M abrasion-resistant technology allows it to apply a much more durable hard coat than can the competition. This abrasion-resistant coating prevents the film from scratching or demetalizing when the film is bumped, touched, or cleaned. Competitors' hard coats are thinner and are easily scratched 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 that is 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 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 the weathering process. Prolonged testing assures long-term film durability, color stability, adhesive performance, 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.)
- 4. ASTM E-84 Flammability is always a concern for commercial and residential structures. 3M Scotchtint<sup>TM</sup> 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 it will be around to honor its commitments. Many of our competitors (several owned by foreign-based companies) have not even been in business for five years, or have been bought and sold numerous times over the last decade.

Some companies may offer a longer warranty but those warranties are limited in coverage. In the event that 3M film is found to be defective within the warranty period, the **material and labor** will be replaced at no charge. In addition, you will not void your 3M warranty by using ammonia as a cleaning agent.

3M is also fortunate to have Nationwide coverage of Independently owned Dealer Applicators. We are proud of their attention to detail and adherence to the stringent standards of 3M requirements. These 3M Dealers will make your 3M Window Film investment a delight!



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