

3M *Holding Fast*

High Performance Acrylic Foam Tapes for the Automotive Aftermarket

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3M Paint Protection Film — The Clear Advantage

3M™ Scotchcal™ Paint Protection Film is specially designed to preserve the beauty and integrity of automotive painted finishes.

When applied to the front end, wheel well, door edge, bumper, bed rail, or tailgate areas, this OEM-approved clear urethane film allows a vehicle's paint color brilliance to show through, while protecting it from damage caused by stone chips, bugs, abrasion and weathering.

OEM-approved 3M paint protection film is constructed of thermoplastic urethane, a tough, conformable plastic material used for its long-term durability. This layer is covered by a clear coat that contains UV protectants to counteract harmful ultraviolet rays and to resist yellowing. The film is attached with a high-performance, pressure-sensitive adhesive that ensures excellent adhesion to OEM paints, preventing costly field failures.

Film Users Respond

Three aftermarket companies discuss their use of 3M paint protection film, the benefits it provides, and how it can save money for vehicle owners.

Invinca-Shield of Elkin, North Carolina, was founded in 1995 and manufactures vehicle paint protection kits using 3M film. "3M paint protection film protects vehicles from road hazards such as bug acids and stone chips on impact areas," said Daniel Bagness, company president. "3M has an excellent reputation for testing materials before putting them out in the marketplace. We've never had a complaint, nor a warranty claim. 3M paint protection film is very reliable."

Invinca-Shield buys paint protection film in bulk rolls and manufactures over 1,700 model-specific kit varieties for



3M™ Scotchcal™ Paint Protection Film is barely visible when properly installed on a vehicle, yet provides tough, reliable protection against road hazards.

RVs, automobiles, race cars, tractor trailers, and trailers. The company has done several custom projects for the race car and aeronautical industries as well.

Paint protection film application can be a challenge for a do-it-yourselfer. "The biggest challenges to successful installation are proper alignment and correct squeegee technique," said Dan Dreher, window tint and paint protection film installer at P & L Automotive. "The best bet is to have a professional, experienced installer apply the film."

P & L is an Auto Armor™ distributor in Minneapolis, Minnesota. The company has used Scotchcal paint protection film since 1991. "We considered using a lower-priced film, but it didn't have UV blocker and the quality wasn't there. We didn't want customers coming back to us unhappy because of yellowing film."

Dreher explains that paint protection film can stop rock chips from compromising painted vehicle surfaces. "When paint chips off a vehicle, rust can develop, especially in climates like Minnesota's. 3M film provides clear, non-

grainy UV protection while eliminating worry of paint chipping and rust.”

According to Dreher, P & L Automotive was the first company in Minnesota to offer kits that wrap around the entire edge of the vehicle hood, protecting especially vulnerable surfaces that are often left uncovered.

Clear Protection

A key element in quality paint protection film is its invisibility. “It must be clear. If you can see it, you aren’t getting the best product on the market,” said Susan Knudson, parts manager at B & K Automotive and Truck Accessories in St. Paul, Minnesota, an automotive after-market specialist in everything but repair.

“We’ve used 3M paint protection film since 1991. We tried another film protection product and found it wasn’t clear. It would eventually take on an unattractive yellow cast,” explained Knudson. “3M paint protection film saves the customer money in the long run by resisting damage and eliminating the need for hood repainting, which can cost from \$400 to \$500.”

B & K cuts kits from bulk rolls of 3M™ Scotchcal™ Paint Protection Film, custom cutting as needed for each vehicle. Like P & L, they recommend using a professional installer for best results.

According to Knudson, “3M is responsive and very easy to work with. They get orders to us right away, and we’ve never had a complaint of adhesive failure using their film.”

Tested Protection

3M routinely conducts testing of its Scotchcal paint protection film using a gravelometer, a test unit designed to reproduce the effect of gravel striking exposed painted or coated surfaces of an automobile. This testing is based on the SAE J400 standard required by vehicle manufacturers’ material specifications.

As shown in the photograph, the test is conducted on a 4” x 12” steel panel, half of which is covered with 3M paint protection film and half left unprotected. The panel



This painted panel subjected to a rugged gravelometer test shows the protective benefit of using 3M™ Scotchcal™ Paint Protection Film.

is left for 24 hours at room temperature to ensure complete adhesion, then frozen to -30°F and placed inside the gravelometer, where one pint of gravel (250-300 stones) is sprayed at the painted surface at a velocity of 30-60 mph.

As the photograph indicates, the panel section coated with 3M film was left undamaged, while the unprotected portion shows paint chips and dents. 3M paint protection film preserves a vehicle’s value and offers clear and lasting protection for its lifetime.

APPLICATION TIPS FOR OPTIMIZING PERFORMANCE

For best film application success, 3M recommends using a solution of 25% isopropyl alcohol and 75% water on both the film and the vehicle surfaces to be covered with film. This method allows for easier repositioning, entraps fewer air bubbles beneath the film surface and provides better long-term adhesion. The solution will not cause the film to turn hazy as can other solutions or methods. 3M advises that paint protection film never be applied dry. Once the film has been properly applied, avoid washing the vehicle in an automated car wash system for 24 hours. After the 24-hour period, no special care need be taken for the film.



Automotive Division

3M Center, Building 223-1S-02

St. Paul, Minnesota 55144

Customer Information: 800-328-1684, ext. 444