January 2018
Supersedes Data Sheet dated October 2014

3M Science. Applied to Life.™

3M™ Blackout Film FRA0045J

Technical Data Sheet



3M™ Blackout Film FRA0045J is a high performance Blackout Film intended for application to a wide range of interior and exterior surfaces, such as window frames, window sashes, window extensions, body and door pillars, dashboard components and lids. The film has a textured surface and matte black appearance. It is highly conformable and scratch resistant and has excellent weathering performance.

The air-bleedable feature of the adhesive layer has been designed for air bubble free application of the blackout film while still providing strong, reliable adhesion under extreme conditions of environmental stress such as climatic change and humidity cycling.

3M Blackout Film FRA0045J features, advantages and benefits include:

- Effective design tool for brand differentiation and visual impact
- Reduction of time requirements and expense of certain paint processes and related steps
- Potential for reduction in production costs due to die-cut, pre-masked parts and simple dispensing tools
- Appearance that meets stringent automotive OEM design specifications

Applications



Door Pillars and Window Sashes



B-Pillar

Product Construction

Application Tape (optional)
Black Film Layer
Adhesive Layer
Poly-coated Layer



Physical Properties

Characteristics	Results	Test Method
Nominal thickness (film +adhesive)	142 µm (5.6 mils)	3M DCC654
Tensile Strength	20 MPa	3M Internal
Elongation	175%	3M DCC654

Product Characteristics

Characteristics	Results
Surface	Random medium texture
Color	Matte black
Film	PVC
Adhesive	Pressure sensitive modified acrylic with adequate initial adhesion and strong, reliable final adhesion to a wide variety of automotive surfaces in all types of environmental conditions
Liner	Poly-coated paper liner for easy film release and precision cut edges

Performance Properties

Performance tests are run using standard test procedures in 3M laboratories. These values presented are typical and not to be used for specification purposes.

Test Description	Results	Test Method
180° Peel Adhesion (Standard Paint)		
30 minutes @ SLC (Standard Lab Conditions)	600 N/m	3M DCC654
48 hours at SLC	700 N/m	3M DCC654
7 days at 80°C	1100 N/m	3M DCC654
Thermal Cycling	900 N/m	3M DCC654
Environmental Simulations		
Thermal Cycling – 5 cycles	Pass	3M DCC654
Salt Spray – 7 days	Pass	3M DCC654
Fluid Resistance		
Fuel Immersion Resistance (5 min submerged followed by 5 min @ SLC, 3 cycles)	Pass	3M DCC654
Solvent Resistance (25 rub cycles): Window washer fluid, Antifreeze, SAE20, diesel fuel	Pass	3M DCC654
High Pressure Wash (1,000 PSI)	Pass	3M Internal
Acid Resistance (three drops 1% HCL, 30 min)	Pass	3M DCC654
Weathering Exposure		
Xenon Accelerated 2640 KJ (SAE J2527)	Pass	3M DCC654
Natural Weathering (Florida and Arizona) – 24 months	Pass	3M DCC654

Application Conditions

Recommended temperature range of 24 ± 6°C for part, vehicle body, and ambient conditions. Heat or cool as needed to maintain required temperature range. Clean application area is required.

Shelf Life

One year from date of receipt by customer when stored in original packaging at 22 ± 4°C and at a maximum moisture of 60% RH.

Regulatory Information

Please refer to the product label and Article Information Sheet (AIS) for health and safety information before using.

Contact Information

The information provided in this technical document is intended as a guide for these products. For more information or help in selecting a 3M product for an application, please contact your 3M technical service representative or call 1-800-328-1684.

Technical Information: The technical information, recommendations and other statements contained in this document are based upon tests or experience that 3M believes are reliable, but the accuracy or completeness of such information is not guaranteed. Product 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. Given the variety of factors that can affect the use and performance of a 3M product, user is solely responsible for evaluating the 3M product and determining whether it is fit for a particular purpose and suitable for user's method of application. Warranty, Limited Remedy, and Disclaimer: Unless an additional warranty is specifically stated on the applicable 3M product packaging or product literature, 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 IMPLIED WARRANTY OR CONDITION OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY IMPLIED WARRANTY OR CONDITION ARISING OUT OF A COURSE OF DEALING, CUSTOM OR USAGE OF TRADE. If the 3M product does not conform to this warranty, then 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 where prohibited by law, 3M will not be liable for any loss or damage arising from the 3M product, whether direct, indirect, special, incidental or consequential, regardless of the legal theory asserted, including warranty, contract, negligence or strict liability.

Automotive and Aerospace Solutions Division
3M Center
St. Paul, MN 55144-1000
Phone 1-800-328-1684 | Web www.3M.com/autosolutions

3M is a trademark of 3M Company
Please recycle. Printed in USA.
© 3M 2018 All rights reserved.