



Solution Profile — Leading Edge Protection using 3M™ Polyurethane Protective Tape

Process/Shop: Exterior leading edge protection

Key Issues: Corrosion, erosion and foreign object damage (FOD) management

Application Attribute: Helps reduce rain and erosion damage and provides protection from FOD. Significantly reduces FOD costs and extends service life.

RELATED GOVERNMENT REGULATORY, INDUSTRY SPECIFICATIONS AND EXPERIENCE	
Air Force Tech Order 1-1-8 Lockheed Martin FMS-0025 Navy T.O. 509	3M tapes are used by OEM and military organizations to minimize corrosion, erosion and FOD.



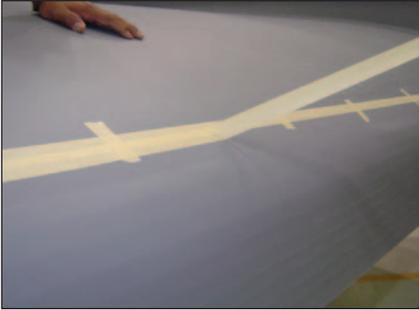
Wing leading edge.

PRODUCT SOLUTION	
	<p>3M™ Polyurethane Protective Tape 8681HS</p> <p>Simple tools are required for installation of 3M™ Polyurethane Protective Tapes.</p>

KEY BENEFITS	
	<p>Excellent Impact Protection When applied over the aircraft leading edges, 3M tapes provide an excellent barrier to FOD and abrasion damage.</p> <p>Fast, Safe, and Easy Application 3M tapes have strength and body, which allow them to be easily handled without tearing, and do not contain hazardous chemicals. Application is achieved by removing a protective liner from the adhesive side of the tape and applying the tape directly on to the prepared surface.</p> <p>Erosion Protection 3M tapes have been demonstrated to prevent erosion and corrosion caused by FOD and reduces maintenance costs.</p>

ADVANTAGES	
	<p>Forms a Tough, Durable Barrier 3M tapes have been subjected to a wide range of performance testing before being accepted as surface protection materials. They provide a unique combination of high-strength abrasion resistance and conformability necessary to perform in this application.</p> <p>Replaces Polyester Film and Similar Materials 3M tapes have been designed and specified by military and commercial aircraft OEMs to resolve performance problems observed with other alternative materials and techniques previously used including vinyl tapes, polyester films and other sealing materials.</p> <p>Helps Reduce Maintenance Costs 3M tapes have been proven to significantly reduce FOD.</p>

3M Leading Edge Protection



Installation of tape to be used as a hinge for the 3M™ Polyurethane Protective Tape.



Skip slit liner being removed.



Wing leading edge installation complete with edge seal.

Solutions for Surface Protection

Adhesion to Structure	3M tapes maintain excellent adhesion to surface structures and sealants to form a continuous barrier.
Conform over Features	3M tapes conform to raised features to provide a continuous barrier.
Fast & Easy Fluid Barrier Application	3M tapes provide an effective high-strength, tough, lightweight, abrasion resistant barrier that is fast and easy to apply.

Ordering Information

POLYURETHANE PROTECTIVE TAPE	COLOR	UPC	NSN
3M™ Polyurethane Protective Tape 8681 HS custom sized; skip slit liner	Clear	Contact 3M Government Markets for assistance 1-866-556-5712	
3M™ Polyurethane Protective Tape 8681 HS custom sized; non skip slit	Clear		
3M™ Polyurethane Protective Tape 8681HS custom sized; skip slit liner	36173 Medium Dark Gray		
3M™ Polyurethane Protective Tape 8681HS custom sized; non skip slit	36173 Medium Dark Gray		
3M™ Polyurethane Protective Tape 8681HS custom sized; skip slit liner	36118 Dark Gray		
3M™ Polyurethane Protective Tape 8681HS custom sized; non skip slit	36118 Dark Gray		
3M™ Polyurethane Protective Tape 8663HS custom sized	Clear		
3M™ Polyurethane Protective Tape 8663HS custom sized; non skip slit	Matte Black		
3M™ Polyurethane Protective Tape 8663HS custom sized; skip slit	Matte Black		
3M™ Coating Repair Kit 899K10	—		

3M Leading Edge Protection

Ordering Information

OTHER PRODUCTS	COLOR	UPC	NSN
3M™ Scotch-Weld™ Epoxy Adhesive DP-190, 1.7 fl oz., 12 per carton	Gray	021200 22647 2	1680-01-431-3607
3M™ Adhesion Promoter 86A, 1 pt., 12 per carton	Clear	021200 31592 3	8040-01-450-9187
3M™ Adhesion Promoter 86A Wipes, 5 per pack	Clear	021200 96361 2	N/A
3M™ Scotch-Weld™ EPX™ Mixing Nozzle 9742, 50ml, 72 per carton	—	021200 21791 3	5120-01-425-1023
3M™ Scotch-Weld™ EPX™ Plus II Applicator, 50ml, 1:1 ratio, 10 per carton	—	021200 50004 6	N/A
3M™ Scotch-Weld™ EPX™ Plus II Mixing Nozzle, 50ml, 72 per case	—	021200 50008 4	N/A
3M™ Protective Tape Application Solution, 1 qt., 1 per case	—	048011 56800 3	N/A
3M™ Tape and Residue Remover, 1 gallon can	—	051131 35976 5	N/A
3M™ Tape and Residue Remover, 16 oz. tub	—	051131 35975 8	N/A
3M™ Vinyl Tape 471	Blue Yellow Red Green	021200 03121 4 021200 06410 4 021200 03107 6 021200 03145 8	7510-00-634-2943 7510-00-664-0473 7510-01-070-0847 7510-01-259-1400

3M Leading Edge Protection

For Additional Information

In the U.S., call toll free 1-800-235-2376 or fax 1-800-435-3082 or 651-737-2171. For U.S. Military, call 1-866-556-5712 or fax 651-737-4380. If you are outside of the U.S., please contact your nearest 3M office.

Important Notices

3M MAKES NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. User is responsible for determining whether the 3M product is fit for a particular purpose and suitable for user's method of application. Please remember that many factors can affect the use and performance of a 3M product in a particular application. The materials to be bonded with the product, the surface preparation of those materials, the product selected for use, the conditions in which the products is used, and the time and environmental conditions in which the product is expected to perform are among the many factors that can affect the use and performance of a 3M product. Given the variety of factors that can affect the use and performance of a 3M product, some of which are uniquely within the user's knowledge and control, it is essential that the user evaluate the 3M product to determine whether it is fit for a particular purpose and suitable for the user's method of application.

Limitation of Remedies and Liability

If the 3M product is proved to be defective, THE EXCLUSIVE REMEDY, AT 3M'S OPTION, SHALL BE TO REFUND THE PURCHASE PRICE OF OR TO REPAIR OR REPLACE THE DEFECTIVE 3M PRODUCT. 3M shall not otherwise be liable for loss or damages, whether direct, indirect, special, incidental, or consequential, regardless of the legal theory asserted, including, but not limited to, contract, negligence, warranty, or strict liability.

For Additional Product Safety and Health Information

See Material Safety Data Sheet at www.3M.com/MSDS.



Aerospace and Aircraft Maintenance Department

3M Center, Building 223-1N-14
St. Paul, MN 55144-1000
1-800-235-2376
www.3M.com/aerospace

Please Recycle

3M, EPX and Scotch-Weld are trademarks of 3M Company.

Printed in U.S.A.
60-9700-0120-6
© 3M 2006. All Rights Reserved.