

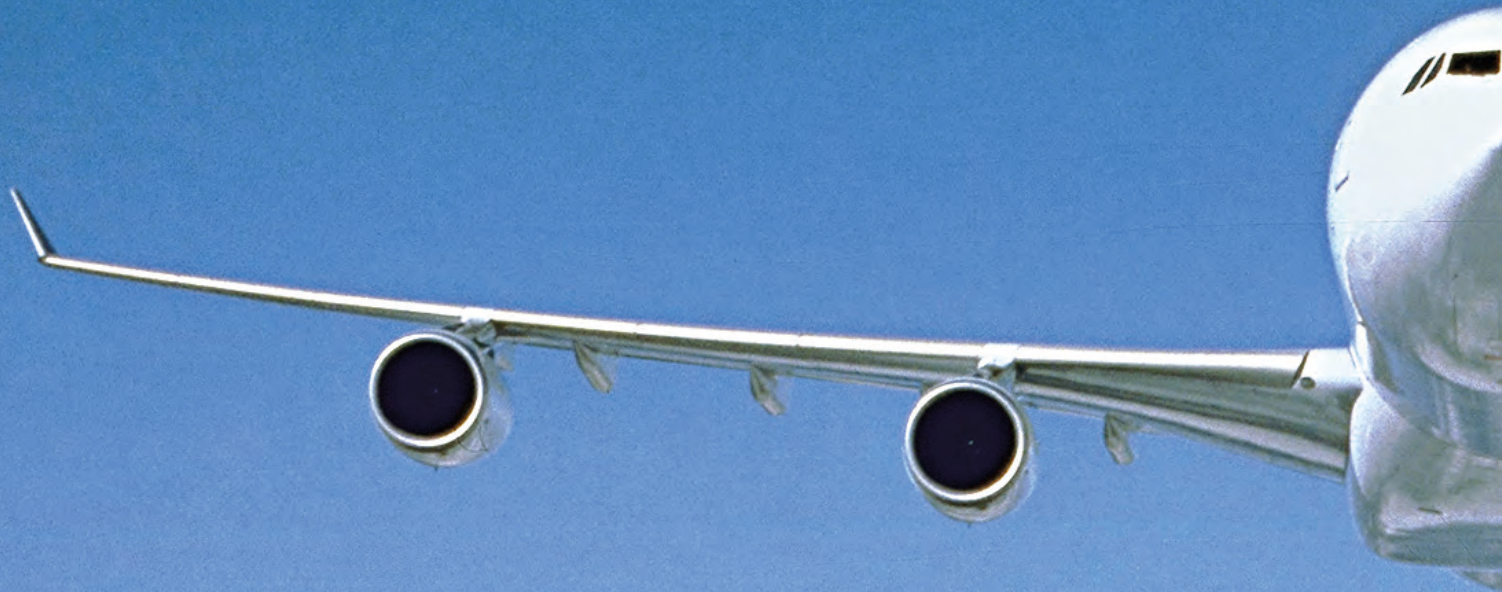
3M Science.
Applied to Life.™



Keep Your Edge

Fast, safe, and easy application, 3M™ Polyurethane Protective Tapes provide outstanding surface protection from erosion, corrosion, and other foreign object damage across the aircraft.

50 years of Polyurethane Technologies



1965
Rotor blade
protection

1973
Navy Radome
boots

1985
Light Stable
Erosion
Protection

1990
Matte Black
Desert
Storm Rotor
Protection

1994
Erosion
Protection for
Wind Turbines

1968
Aircraft
leading
edges

1977
Fuel Cell
Bladder
Protection

1989
Supersonic
Application
Capability

1991
High Impact
Protection

Future proof your fleet.

Bad weather. Dust and sand. Rising fuel costs. Bring it on. You're covered with the most revolutionary surface protection products out there. Because you can't control the future. But you can be ready for it.



1997
High Clarity
& UV Stability

2010
Heated
Leading
Edge Tape

1996
Paint
Replacement
Tape & Film

2002
Repair
Patch
Products

2012
Co-curable
Film Composite
Protection

2017
Repair Paste



Choose tapes instead of coatings.

Tapes:

- ▶ Uniform thickness and weight
- ▶ Easily repairable with multiple options
- ▶ Easy to remove
- ▶ No special installation equipment necessary
- ▶ Conformable to curves
- ▶ Solvent-free technology
- ▶ Puncture resistant
- ▶ Highly durable

Coatings:

- ▶ Multiple coats and frequent touch-ups
- ▶ Environmental concerns (VOCs)
- ▶ Complicated EH&S management issues
- ▶ Costly equipment and skilled personnel required for application
- ▶ Potential for coating irregularity

Impact and erosion protection.

Now you can control the elements. With 3M, you get superior exterior protection from erosion on leading edges and flight surfaces compared to paint, coatings and alternative tapes. That means less downtime and improved appearance.

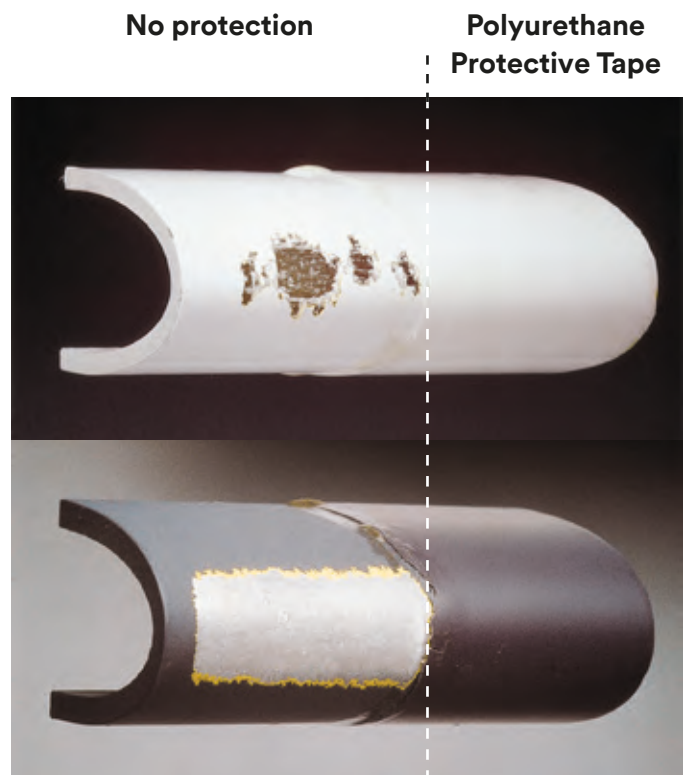
Leading Edge Protection / Rain Erosion

Substrate: Epoxy with Mil-P-23377 Primer, Alumigrip G8003 Paint

- ▶ Rainfall: 500 MPH 1"/Hr.
- ▶ Drop Size: 2mm
- ▶ Exposure time: 10 minutes

Substrate: Aluminium with Mil-P-23377 Primer, Mil-C-83286B Paint

- ▶ Rainfall: 500 MPH 1"/Hr.
- ▶ Drop Size: 2 mm
- ▶ Exposure time: 45 minutes



Impact and Erosion Protection

3M™ Polyurethane Protective Tape 8641

A high impact resistant and durable, outdoor grade polyurethane protective tape with acrylic foam adhesive. Perforated for application on pressurized fuselage panels; also available without perforations.

- ▶ High-level protection of aircraft skins and panels from small Foreign Object Damage (FOD)
- ▶ Qualified to numerous military and commercial aircraft specifications for extreme protection from rocks and debris. Commonly called “Belly Tape”
- ▶ Eliminates need for waste stream profile; land fillable

Product Name	Colour(s)	Total Thickness	Adhesive
8641	Dark grey and green	1.05mm (42.0 mil)	Foam Acrylic

3M™ Polyurethane Protective Tape 8671 & 8671 HS

A leading edge, erosion protection tape that is a tough polyurethane with acrylic adhesive that resists punctures, tearing and abrasion. Easily applied to a variety of surfaces; conformable and can be painted or applied over painted surfaces.

- ▶ Easily die-cut to shape, paintable, printable and conformable to curved surfaces.
- ▶ UV resistant
- ▶ Available in a high shear adhesive (HS) formulation for applications requiring superior erosion resistance and better performance at high temperatures

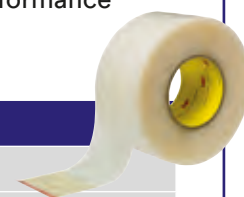
Product Name	Colour(s)	Total Thickness	Adhesive
8671	Transparent and gloss white	0.35mm (14 mil)	Acrylic
8761 HS	Transparent and gloss white	0.35mm (14 mil)	High Shear Acrylic

3M™ Polyurethane Protective Tape 8681 & 8681 HS

A leading edge, erosion protection tape, that is a tough polyurethane with acrylic adhesive that resists punctures, tearing and abrasions. Formulated for UV resistance. Can be applied to a variety of surfaces; conformable and can be painted or applied over painted surfaces.

- ▶ Little or no discolouration after prolonged periods of environmental exposure
- ▶ Easy to apply and stretches to conform to difficult contours
- ▶ Available in a high shear adhesive (HS) formulation for applications requiring superior erosion resistance and better performance at high temperatures

Product Name	Colour(s)	Total Thickness	Adhesive
8681	Matte black and grey	0.36 (14 mil)	Acrylic
8681 HS	Matte black and grey	0.36 (14 mil)	High Shear Acrylic



3M™ Polyurethane Protective Tape 8663HS

A leading edge erosion protection tape that is a tough polyurethane with acrylic adhesive that resists punctures, tearing and abrasion. Constructed of a polyurethane backing coated with a long-aging, solvent-resistant, pressure sensitive adhesive that is protected with a transparent easy-release liner.

- ▶ Acrylic adhesive bonds to a wide variety of substrates and retains bond strength over time, yet removes easily when needed
- ▶ Tape can be painted or applied to painted surfaces
- ▶ Easy to apply and conforms to curved surfaces

Product Name	Colour(s)	Total Thickness	Adhesive
8663HS	Glossy transparent and matte black	0.45mm (18 mil)	High Shear Acrylic



Boots & pre-formed shapes

- ▶ 600+ unique shapes engineered to fit aircraft parts
- ▶ Highly UV resistant
- ▶ Providing protection on high-valued exterior aircraft parts
- ▶ Perfect for antennas, radomes, spinners, engine inlet protection and leading gear protection



Corrosion Protection

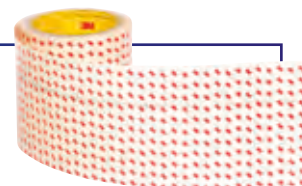


With enhanced interior protection from 3M, corrosion is a thing of the past. With our easy-to-apply tapes we can significantly reduce corrosion expenses and aircraft days out of service.

3M™ Polyurethane Protective Tape 8657DL

This polyurethane protective tape covers the large areas of flooring, creating a “tub” to prevent migration of moisture and corrosive substances to the flooring substructure. This tough, thermoplastic polyurethane material can resist abrasion, scratching, punctures and erosion.

- ▶ Removes cleanly
- ▶ Transparent surface protection for wide area floor board protection
- ▶ Flame resistant

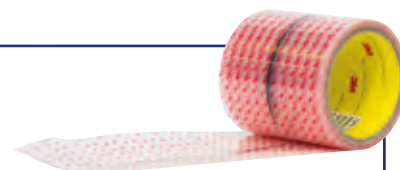


Product Name	Colour(s)	Total Thickness	Adhesive
8657 DL	Transparent	0.46mm (18 mil)	Rubber-Based

3M™ Polyurethane Protective Tape 8658DL

This polyurethane protective tape is a seam sealing tape for wet area corrosion protection. It is resistant to abrasion, erosion, scratching, punctures and impact. It is primarily used in the aircraft lavatory and galley areas and applications to help establish an excellent barrier to fluids.

- ▶ Removes cleanly
- ▶ Transparent seam sealing protection
- ▶ Flame resistant
- ▶ Compatible with wet polysulfide sealant

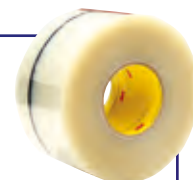


Product Name	Colour(s)	Total Thickness	Adhesive
8658 DL	Transparent	0.23mm (9 mil)	Rubber-Based

3M™ Polyurethane Protective Tape 8663DL

The original polyurethane protective tape for interior corrosion prevention, 8663DL establishes a tough durable puncture resistant barrier that helps prevent liquids from penetrating flooring and becoming a possible source of corrosion in aircraft areas such as entry areas, galleys, and lavatories.

- ▶ Double liner construction allows easy application for wide areas
- ▶ Conforms over curved surfaces
- ▶ Can be painted or applied to painted surfaces



Product Name	Colour(s)	Total Thickness	Adhesive
8663DL	Transparent	0.46mm (18 mil)	Acrylic

Composite Protection

Keep your fleet looking flawless. Save money with increased uptime and fewer repairs. Our breakthrough solutions make protection part of the part—so leading edges, engine components and other composite parts can withstand the harshest environments.

Paint Replacement

3M™ Paint Replacement Tape 5004

3M™ Paint Replacement Tape 5004 is a fluoropolymer film with acrylic adhesive that provides high performance, low surface energy coating solution for both interior and exterior applications.

- ▶ Successfully used in general aviation, commercial, and military aircraft applications.
- ▶ Light grey

Co-curable Polyurethane Protection Film


Co-curable polyurethane protection film is a revolutionary, polyurethane-based, erosion-resistant composite surfacing film that creates built-in protection for composite parts. It significantly improves sand and rain erosion resistance vs. traditional polyurethane coatings and paint/epoxy surfacing films.

- ▶ Appropriate for co-curing during composite curing process or post applied using film adhesive
- ▶ Suitable for 120°C or 180°C cure cycles
- ▶ Built-in erosion protection of composite parts eliminates additional process steps
- ▶ Repair system available
- ▶ Excellent paint adhesion to cured film

Below: 8734NA grey on top of 8730NA black cured onto composite panel with peel ply on surface—120°C vacuum bag cure



Product Name	Colour(s)	Total Thickness	Adhesive
8730NA	Matte black	0.30mm (12 mil)	Non-Adhesive
8734NA	Matte black	0.15mm (6 mil)	Non-Adhesive



**60x Better:
Paint erodes after just 9 seconds.
Co-curable polyurethane
protective film, 9 minutes.**

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