

3M Electrical Markets Division

3M™ Wind Protection Tape 2.1

W8751, W8781

Introduction

3M™ Wind Blade Protection Tape 2.1 can be used to protect wind turbine blade surfaces from damage caused by minor impacts and erosion due to rain, sand, dirt or other debris.

It is made from either a translucent (W8751) or light grey (W8781) polyurethane elastomer that is designed to resist puncture, erosion and UV rays. 3M Wind Blade Protection Tape 2.1 is easy to apply and requires no special tools. 3M Wind Blade Protection Tape W8751 is colorless, and 3M W8781 tape is light grey (RAL 7035) and both are constructed with a highly durable, pressure sensitive acrylic adhesive.

Safety and Regulatory

This product is considered to be an article that does not release or otherwise result in exposure to a hazardous chemical under normal use conditions.

Shipping and Storage

No special/hazardous labels or packaging required for air, ground, or water shipment of this product.

Keep film in a clean area, away from excessive moisture and out of direct sunlight. Store rolls in the shipping carton. Return partially used rolls to the shipping carton.

Typical Physical Properties

Properties	Test Method	Nominal Values
Approximate Applied Thickness¹ um (mil)	Film	300 (12)
	Adhesive	60 (2.4)
Standard Roll Length m (yd)		33 (36)
Standard Roll Width mm (inches)		102 (4), 152 (6), 254 (10), or 305 (12)
Approximate Weight g/m ² (lb/yd ²)		400 (0.7)
Splices		No
Liner Type		Polyethylene
Tensile Strength @ Break MPa	ISO 527-3 Type 5 die, 500 mm/min	23
Nominal Strain @ Break %	ISO 527-3 Type 5 die, 500 mm/min	430
Peel Adhesion² @ 21°C (70°F) 24-hour dwell, N/cm (oz/in)	ASTM D1000 180° peel	Epoxy Primer W9910: 9.1 (83)
Rain Erosion, initial, hours Aeronordic, 140 m/s, 2.1 mm droplet	DNVGL-RP-0171	RET reports available upon request
UV Resistance	3M	Excellent
Hardness Shore A	ASTM D2240	70
Gloss 20° / 60°	3M	8751: 1.2 / 6.1 8781: 1.0 / 4.1
Service Temperature °C (°F)		- 40 (-40) to 70 (158)
Application Temperature °C (°F)		> 10 (50)

¹ Excludes the polyethylene liner that is removed from the tape prior to application.

² Peel adhesion values listed are representative. Peel adhesion strength may be different for each substrate or coating. 3M recommends testing peel adhesion to the substrate of interest prior to use.

Note: This technical information and data should be considered representative or typical only and should not be used for specification purposes. Read and follow the precautions on label and Article Information Sheet (AIS) before using product.

Shelf Life

These products have a shelf life of two years from date of manufacture.

Directions for Use

See www.3M.com/wind for 3M Wind Blade Protection Tape Application Instructions.

Precautionary Information

Refer to product Article Information Sheet for health and safety information before using this product. For additional health and safety information, visit www.3M.com or call **1-800-364-3577** or **(651) 737-6501**.

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45 43 480100

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39 02 70351

Singapore

65 6450 8888

China

86 21 62753535

Korea

82 2 37714043

India

91 80 22231414

Canada

800 364 3577

Brazil

0800 13 23 33

Mexico

52 55 52702250

Taiwan

886 933 896752

Japan

81 3 3709 8283

Malaysia

603 78062888

Other Areas

800 755 2654

For more information on our wind energy product line, contact 3M Electrical Markets Division at 800 676 8381 or visit us at www.3M.com/wind.

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