

3M™ Metal Foil Tapes

Key Customer Markets

- ◆ Aerospace
- ◆ Metal Finishing
- ◆ Appliance
- ◆ Automotive

Aluminum Foil Tapes

Moisture and Chemical Resistant

Help seal and protect many sensitive assemblies and surfaces.

Thermally Conductive

Help maximize efficiency of heating or cooling by increasing transmission over broader area.

Heat and Light Reflective

Help protect plastic components from heat damage. Help improve visibility by magnifying light sources.

Flame Resistant

Help protect parts from flame damage.

Outdoor Weatherable

Resist U.V. degradation, ensures long lasting performance.

Aluminum Foil/Reinforced Tapes

Highly Conformable and Non-rigid

Ideal for spiral wrap heat and flame protection of cables, hoses and harnesses. Wrapped flexible hoses retain flexibility.

High Strength

Good wearability, high tear and puncture resistance.

Flame Resistant

Help protect parts from flame and heat damage.

Lead Foil Tapes

Electrically Conductive

"Thieving" action eliminates metal plating edge build-up.

Acid Resistant

Broad applicability for etching, milling and plating operations.

Malleable

High conformability: can be easily worked with burnishing tools.

High Density

Ideal weighting or balancing medium.

X-ray Opacity

Help protect components from x-rays. Great marker or locator for x-ray inspection operations.

Damping Foils

Noise Reduction

Unique polymer converts vibration to negligible heat.

Fatigue Reduction

Reduced vibration helps prolong product life.

Vibration Damping

Damp resonant vibration for noise control.

PRODUCT INFORMATION

Product/Color	Tape Structure (Backing/Adhesive)	Backing Thickness mils (mm)	Total Thickness mils (mm) (N/100 mm)	Adhesion to Steel oz./in. (N/100 mm)	Tensile Strength lbs./in. (N/100 mm)	Elongation at Break %	Temperature Range F (°C)	Comments
ASTM Test Method: D-3652 D-3652 D-3330 D-3759 D-3759								
PREMIUM PERFORMANCE ALUMINUM FOIL TAPES								
425	Aluminum/Acrylic	2.8 (0.07)	4.6 (0.12)	47 (51)	30 (525)	8	-65 to 300°F (-54 to 149°C)	Most versatile Aluminum tape. ^{1,2,4,7}
427	Aluminum/Acrylic	2.8 (0.07)	4.6 (0.12)	50 (55)	30 (525)	8	-65 to 300°F (-54 to 149°C)	Lined version 425 Tape. ^{2,4,7}
431	Aluminum/Acrylic	1.9 (0.05)	3.1 (0.08)	41 (45)	19 (338)	5	-65 to 300°F (-54 to 149°C)	Conformable Aluminum tape. ⁴
433	Aluminum/Silicone	2.0 (0.05)	3.6 (0.09)	40 (43.8)	20 (350)	3.5	-65 to 600°F (-54 to 316°C)	MIL-T-47014. ⁴
433L	Aluminum/Silicone	2.0 (0.05)	3.5 (0.09)	38 (42)	20 (350)	3.5	-65 to 600°F (-54 to 316°C)	Lined 433 Tape. ⁴
438	Aluminum/Acrylic	5.0 (0.13)	7.2 (0.18)	43 (47)	59 (1033)	10	-65 to 300°F (-54 to 149°C)	Thickest Aluminum tape. ⁴
439	Aluminum/Acrylic	1.9 (0.05)	3.1 (0.08)	41 (45)	18 (315)	3	-65 to 300°F (-54 to 149°C)	Lined version 431 Tape. ⁴
GENERAL PURPOSE ALUMINUM FOIL TAPES								
1446	Aluminum/Acrylic	2.0 (0.05)	3.0 (0.08)	—	18 (315)	4	0 to 225°F (-18 to 107°C)	Cost effective aluminum.
1449	Aluminum/Acrylic	1.4 (0.04)	2.6 (0.07)	—	19 (333)	11	-25 to 250°F (-32 to 121°C)	Thinnest aluminum tape for added conformability.
1450	Aluminum/Acrylic	1.9 (0.05)	3.1 (0.08)	—	19 (333)	6	-40 to 200°F (-40 to 93°C)	High initial tack on low energy surfaces.
ALUMINUM FOIL REINFORCED TAPES								
363	Aluminum/Glass Cloth/Silicone	3.4 (0.09)	7.3 (0.19)	67 (73)	135 (2364)	7	-65 to 600°F (-54 to 316°C)	Highest temp. metal tape. ⁴
1430	Aluminum/Non-Woven/Acrylic	5.0 (0.13)	5.5 (0.14)	22 (24)	19 (333)	12	-65 to 300°F (-54 to 149°C)	Flexible wrapping tape.
3633	Aluminum/Glass Cloth/Acrylic	3.4 (0.09)	5.7 (0.14)	70 (77)	140 (2452)	6	-40 to 300°F (-40 to 149°C)	Lined flame resistant tape. ⁴
LEAD FOIL TAPES								
420	Lead/Rubber	4.7 (0.12)	6.8 (0.17)	45 (49)	20 (350)	12	-60 to 225°F (-54 to 106°C)	Lined plating tape. ⁵
421	Lead/Rubber	4.0 (0.10)	6.3 (0.16)	31 (34)	15 (263)	14	-60 to 225°F (-54 to 106°C)	Unlined plating tape.
DAMPING FOILS								
434	Aluminum/VEP ⁶	5.5 (0.14)	7.5 (0.19)	65 (72)	53 (928)	12	-76 to 68°F (-60 to 20°C) ³	Low temp. vibration damping. ⁴
435	Aluminum/VEP ⁶	8.0 (0.20)	13.5 (0.34)	65 (72)	84 (1470)	12	-76 to 68°F (-60 to 20°C) ³	Low temp. vibration damping. ⁴
436	Aluminum/VEP ⁶	12.0 (0.31)	17.5 (0.45)	65 (72)	126 (2205)	12	-76 to 68°F (-60 to 20°C) ³	Low temp. vibration damping. ⁴
2552	Aluminum/VEP ⁶	10.0 (0.25)	15 (0.38)	50 (55)	80 (1400)	15	40 to 140°F (5 to 60°C) ³	General purpose vibration damping. ⁴
4014/Silver	Aluminum-Urethane/Acrylic	0.250 (6.35)	13 (208) ⁷	—	—	—	-94 to 86°F (-70 to 30°C) ⁵	Foil/Foam Sheet laminate. ³

¹ Can be qualified to L-T-80B, MIL-T-23397B II

² Meets U.L. 723, Class L File R 7311

³ Optimum damping temperature

⁴ F.A.R. 25.853 (a)

⁵ H-T-29A

⁶ Viscoelastic polymer ⁷ Meets U.L. 764c

Note: This technical information and data should be considered representative or typical only and should not be used for specification purposes.