

3M™ Polyester Tape 854

Product Description

3M™ Polyester Tape 854 is an opaque, cream colored polyester tape with excellent chemical resistance for precious metal plating, especially gold.

Key Features

- Excellent chemical resistance in precious metal plating, especially gold
- Polyester backing helps provide dimensional stability and resistance to backing degradation and shrinkage
- Flexible backing helps reduce failure from cracking
- Synthetic adhesive helps reduce failure from splice slippage due to good chemical resistance
- Excellent results in sodium hydroxide etching of aluminum
- Product is wound on a polyethylene tape core

Product Construction

Polyester Film Backing: 1.0 mil
Synthetic Rubber Adhesive: 1.6 mil

Material Description

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

3M™ Polyester Tape 854	
Property	Value
Backing	Polyester
Adhesive	Synthetic Rubber
Color	Cream
Standard Roll Length	66 meters (72 yards), 132 meters (144 yards)

Applications

- Chemical resistance in precious metal plating, especially gold
- Protection in sodium hydroxide etching of aluminum
- Protection of substrates during chemical milling
- General splicing

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Typical Physical Properties and Performance Characteristics

Note: The following technical information and data should be considered representative or typical only and should not be used for specification purposes. Final product specifications and testing methods will be outlined in the product's Certificate of Analysis (COA) that is shipped with the commercialized product.

3M™ Polyester Tape 854		
Property	Method*	Value
Adhesion to Stainless Steel	D-3330	59 oz/in width (64 N/100 mm)
Tensile Strength at Break	D-3759	29 lb/in width (509 N/100 mm)
Elongation at Break	D-3759	123%
Backing Thickness	D-3652	1.0 mil (0.025 mm)
Total Tape Thickness	D-3652	2.6 mil (0.065 mm)
Temperature Use Range**	3M Test Method	-50° to 150°C (-58° to 302°F)
Water Vapor Transmission Rate	3M Test Method	24.8 g/m ² in 24 hours

*Methods listed as ASTM are tested in accordance with the ASTM method noted

**Temperature use range is defined as the maximum time at the stated temperature after which the tape may be removed cleanly

Application Techniques

Note: Be sure to follow the manufacturer's precautions and directions when using solvents.

- Low-stretch polyester film can be applied by machine or by hand.
- Tape must be firmly pressed down by equipment with rubber-covered rollers or a rubber-covered platen press. Hand rolling usually does not provide enough pressure. A vivid outline of the circuit leads usually indicates adequate pressure was used.
- Solvent clean-up is recommended prior to application.

Storage and Shelf Life

The shelf life of 3M™ Polyester Tape 854 is 18 months from the date of manufacture when stored in original packaging materials and stored at 21°C (70°F) and 50% relative humidity.

Certificate of Analysis (COA)

The 3M Certificate of Analysis (COA) for this product is established when the product is manufactured and is deemed commercially available from 3M. The COA contains the 3M specifications, test methods, and test results for the product's performance attributes that the product will be supplied against. Contact your local 3M representative for this product's COA.

Regulatory: For regulatory information about this product, contact your 3M representative.

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