

June, 2013

## 3M™ Polyester Tape 853

### Product Description

3M™ Polyester Tape 853 is comprised of strong, thin polyester backing with high shear, solvent resistant acrylic adhesive. These qualities make this tape ideal for applications where solvent exposure is a concern. It produces a reliable bond to a wide variety of substrates. The overall thinness this tape makes it ideal for splicing.

### Product Features

- Can be qualified to meet Federal Spec. L-T-100 Type I.
- Meets flammability requirements of FAR 25.853(a) Appendix F Part I (a)(1) (ii).
- Polyester backing provides strength without thickness.
- Transparent backing allows visibility of information protected by the tape.
- Acrylic adhesive is resistant to many solvents including jet engine fuel, hydraulic fluid, and lubricating oils.
- Tape has excellent shear holding.
- Versatile adhesive sticks to a wide variety of substrates.
- Low moisture vapor transmission rate.



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## Technical Information Note

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

## Typical Physical Properties

Property	Values		Method
Color	Transparent		
Total Tape Thickness	0.06 mm	2.2 mil	ASTM D3652
Backing Thickness	0.03 mm	1.1 mil	ASTM D3652
Backing	Polyester		
Adhesive	Acrylic		
Water Vapor Transmission	15.5 g/m <sup>2</sup> /24 hr	1.0 g/100 in <sup>2</sup> /24 hr	ASTM D3833

## Typical Performance Characteristics

Property	Values		Method	Dwell/ Cure Time	Dwell Time Units	Substrate	Backing	Notes
180° Peel Adhesion	5 N/cm	46 oz/in	ASTM D3330	72	hr	Stainless Steel	2 mil Aluminum Foil	12 in/min (305 mm/min)
Tensile Strength	43.4 N/cm	400 oz/in	ASTM D3759					
Elongation at Break	180%		ASTM D3759					

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## Typical Performance Characteristics (continued)

Property	Values	Method	Dwell/Cure Time	Dwell Time Units	Substrate	Backing	Notes
Temperature Use Range	10 to 150 °C	-60 to 300 °F					

## Available Sizes

Property	Values	
Standard Roll Length	65.8 m	72 yd

## Handling/Application Information

### Application Ideas

- High tension splicing application.
- Critical label protection.
- Tape hinge.
- Aerospace applications that require FAR flammability rating.
- Sealing critical area from moisture intrusion.

## Storage and Shelf Life

Store under normal conditions of 60° to 80°F (16° to 27°C) and 40 to 60% relative humidity in the original packaging material.

To obtain best performance, use this product within 18 months from date of manufacture.

## Industry Specifications

Can be qualified to meet Federal Spec. L-T-100 Type I Federal Spec. L-T-100 Type I. FAR 25.853(a) Appendix F Part I (a)(1)(ii).

## Trademarks

3M is a trademark of 3M Company.

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## References

Property	Values
3m.com Product Page	<a href="https://www.3m.com/3M/en_US/company-us/all-3m-products/~//3M-Polyester-Film-Tape-853?N=5002385+3293241445&amp;rt=rud">https://www.3m.com/3M/en_US/company-us/all-3m-products/~//3M-Polyester-Film-Tape-853?N=5002385+3293241445&amp;rt=rud</a>
Safety Data Sheet (SDS)	<a href="https://www.3m.com/3M/en_US/company-us/SDS-search/results/?gsaAction=msdsSRA&amp;msdsLocale=en_US&amp;co=ptn&amp;q=853">https://www.3m.com/3M/en_US/company-us/SDS-search/results/?gsaAction=msdsSRA&amp;msdsLocale=en_US&amp;co=ptn&amp;q=853</a>

## ISO Statement

This Industrial Adhesives and Tapes Division product was manufactured under a 3M quality system registered to ISO 9001 standards.

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