



Surface Mount Supplies

Non-Conductive 2656 Pressure-Sensitive Cover Tape

Technical Data – Jan, 2000

Product Description

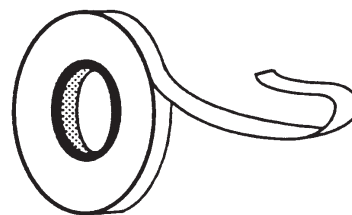
3M™ Non-Conductive 2656 Pressure-Sensitive Cover Tape is a transparent, non-conductive, polyester film tape with a synthetic, room temperature, pressure-sensitive adhesive [PSA] zone along each edge. 2656 Cover Tape has been designed to seal electrical and electronic components into 3M's family of Polycarbonate Carriers. It may also work well with other embossed carrier tapes.

Construction

Backing	Adhesive	Inner Face
Transparent polyester film	Pressure-sensitive, synthetic polymer	Transparent non-conductive polyester film

Available Widths

2656 Cover Tape is available in the standard sizes listed below, with adhesive exposed only along the edges. All 2656 Cover Tape is supplied in 200 meter, splice-free rolls.



Standard Sizes, mm Widths

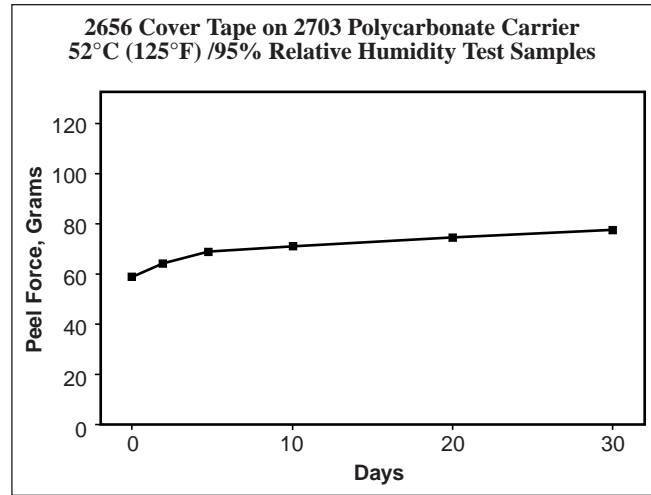
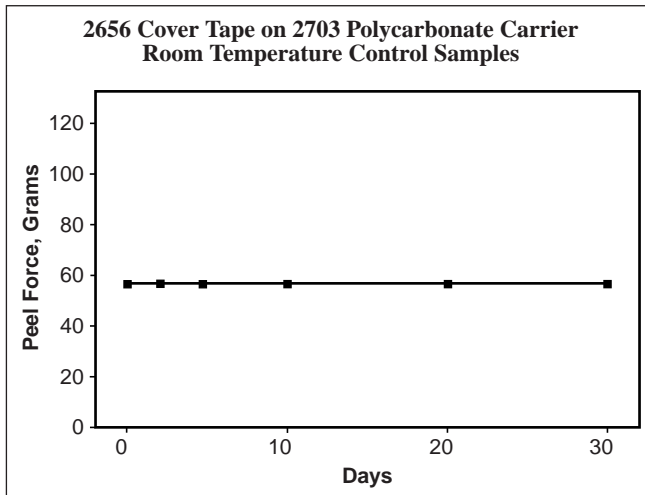
	8	12	16	24	32	44	56	72	88
Carrier									
Cover Tape	5.4	9.3	13.3	21.3	25.5	37.4	49.4	66.5	82.4
Adhesive Exposure each edge	0.67	0.8	1	1	1	1	1	2.5	2
Roll length (meters)	200	200	200 500	200 500	200 500	200 500	200 500	200 500	200 500

Standard Packaging Format

Cover tape is provided on a plastic core, packaged with high density coated paper wafer inserts and a centering core in a polyethylene bag and placed between two end-caps, in a cardboard carton.

Initial Adhesion and Aging Data

3M™ 2656 Cover Tape has a simple process window. Desirable initial peel force values can be achieved through the application of adequate pressure to the non-adhesive surface of the cover tape over the adhesive strips with a reciprocating shoe, or compliant roller mechanism. The following charts depict the typical, room temperature and accelerated aging characteristics of 2656 Cover Tape after sealing to non-conductive carrier tapes.



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

Graph Notes

The graphs in this document represent sealing performance attained under the conditions specifically stated in the sealing parameters section of the charts. Pressure is the indicated gauge pressure used to achieve the seals, and may vary among sealing equipment manufacturers. The use of a different sealing mechanism, i.e., reciprocating vs. roller, may have an effect upon the performance obtained under otherwise identical conditions due to differences in pressure or pressure distribution. The use of heat is specifically not recommended.

All data presented are representative of peeling studies conducted according to the requirements of the current ANSI/EIA-481 Standard. Sealed samples used in these studies were stored under the conditions noted, wound on 330mm diameter reels to simulate typical production use. Samples being tested at elevated temperature and humidity were permitted a minimum equilibration period of one hour at room temperature prior to testing to simulate actual use conditions.

Sealing Parameters:

Cover Tape: Non-Conductive 2656 Cover Tape, 5.4 mm
Carrier: Non-Conductive 2703 Carrier Tape, 8 mm
Sealing Mode: Continuous (Rubber Pressure Roller)
Pressure: 3 bar (42 psig)
Speed: 1.5 linear meters/minute
Temperature: Room Temperature, ≈ 23°C (73°F)

Adhesive Properties

The synthetic adhesive used in the construction of 3M Non-Conductive 2656 Pressure-Sensitive Cover Tape has been engineered to provide long term resistance to thermal degradation, even when exposed to environmental extremes such as the storage conditions depicted in the charts in this publication.

Storage Conditions

3M Non-Conductive 2656 Pressure-Sensitive Cover Tape should be stored indoors, in its original packaging, in a controlled environment not exceeding 35°C (95°F) and 70% relative humidity. The product should be protected from direct sunlight and should be used on a “first-in, first-out” basis.

Shelf Life

It is recommended that 3M Non-Conductive 2656 Pressure-Sensitive Cover Tape be used within 3 years from the date of manufacture when stored according to the recommended storage conditions.

Non-Conductive 2656 Pressure-Sensitive Cover Tape

Description	Units	Typical Performance	Test Notes	Test Method
Material Properties	Backing Type Adhesive Type Sealing Temp	Polyester PSA Room Ambient	1	
Physical Properties	Tensile Strength Elongation Thickness	N/mm Width % mm (in)	7.0 150 .061 (.0024)	2 ATSM-D3759 ATSM-D3759 ASTM-D3652
Electrical Properties	Resistivity (Backing) Resistivity (Adhesive)	Non-Conductive Non-Conductive		ASTM-D257 ASTM-D257
Product Format	Core Type Core Inner Diameter Roll Diameter Roll Length	Material mm (in) mm (in) m (yd)	Plastic 76.2 (3.0) 152 (6.0), 216 (8.5) 200 (218), 500 (546.5)	

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

Test Notes

1. The application of heat to seal PSA cover tapes is specifically not recommended. Pressure in the range of 100 to 500 p.s.i. is usually sufficient to seal PSA adhesives.
2. Tensile tests are conducted at 21°C (70°F), 50% RH, in the machine direction of the polyester film.

Additional Information

To request additional product information or to arrange for sales assistance, call toll free 1-800-666-8273. Address correspondence to: 3M Electronic Handling & Protection Division, 6801 River Place Blvd., Austin, TX 78726-9000. Our fax number is 1-800-826-8893.

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