

3M™ Ultra-Thin Water Contact Indicator Tape 5558

Product Description

3M™ Ultra-Thin Water Contact Indicator Tape 5558 is a 6.0 mil thick printable, self-adhesive product that shows permanent indication when contacted by water. When water comes in contact with the edges of the product, the **color permanently changes from white to red**. This product is designed to withstand heat and humidity aging without giving water indication and it will continue to show indication even after prolonged submersion in water. The top surface is printable by multiple methods including ink jet, laser jet, flexographic, screen, and thermal transfer techniques. The construction is die cuttable, making it well suited for label and identification applications. The high strength acrylic adhesive is protected by a silicone coated, polyester film, release liner.

Product Construction

Backing	Top Film	Adhesive	Color	Standard Roll Length
Film/Paper Laminate	Polyester	Acrylic	White	180 yards

Typical Physical Properties

Note: The following technical information and data should be considered representative or typical only, and should not be used for specification purposes. The adhesion data was generated using a 2 mil aluminum foil as a supplemental backing.

		ASTM Test Method
Adhesion to Stainless Steel: (90° Peel Adhesion, 12 in./min. peel rate, 15 min. Dwell)	36 oz./in. width (39 N/100 mm)	D-3330 (modified)
Adhesion to Stainless Steel: (90° Peel Adhesion, 12 in./min. peel rate, 72 hr. Dwell)	47 oz./in. width (51 N/100 mm)	D-3330 (modified)
Adhesion to Polycarbonate: (90° Peel Adhesion, 12 in./min. peel rate, 72 hr. Dwell)	43 oz./in. width (47 N/100 mm)	D-3330 (modified)
Tape Thickness:	6.0 mils (0.152 mm)	D-3652
Release Liner Thickness:	2.0 mils (0.051 mm)	D-3652
Humidity Resistance:*		

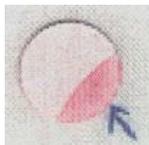
Control, t = 0 days



7 days @ 55°C, 95% R.H.



7 days @ 55°C, 95% R.H.
indicated w/1 drop H₂O for one minute at arrow.



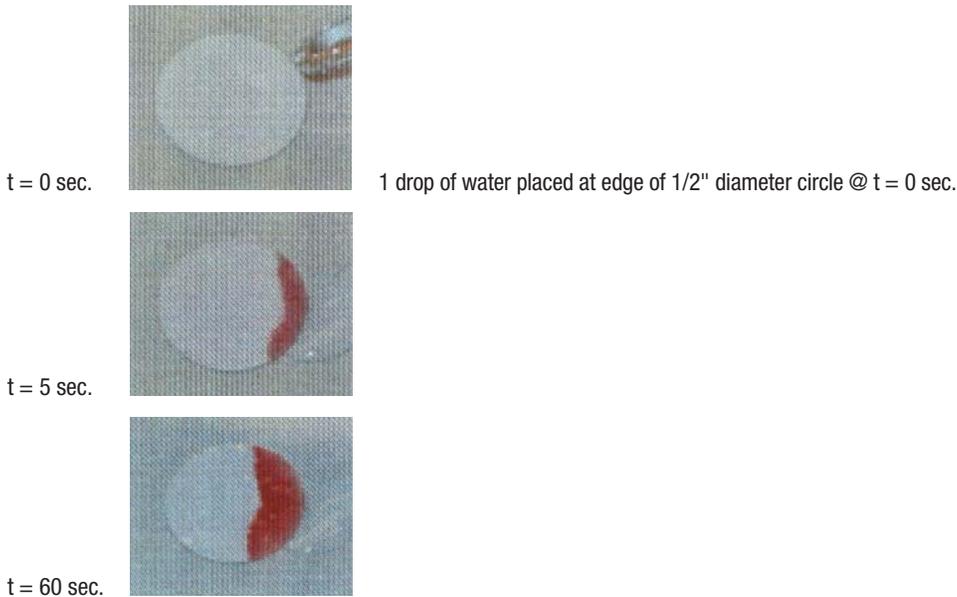
*Tape is applied to polycarbonate panel and hung vertically in heat/humidity chamber.



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Indication Properties

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General

- Tape may be die cut using rotary die cutting process.
- Substrate should be smooth, clean, dry and oil-free to insure good wet-out and adequate adhesion.
- Adhesive should not be applied at temperatures < 50°F (10°C) [best if room temperature or higher].
- Maximum roll length depends upon width.
- Maximum roll width = 12 in. (304.8 mm)
- Temperature resistance is -40°C to 65°C for days or weeks and up to 121°C for minutes or hours.

Application Ideas

- As a water contact indicator/label in handheld or portable electronic devices such as cell phones, PDA's, pagers, MP3 players, game players, CD players, cordless phones, two-way radios, laptops, digital or film cameras, video cameras, etc.
- The ultra thin caliper, 6.0 mils total, is suitable for applications with tight design tolerances.

Key Attributes

Features	Benefits
PET top film	Printable by multiple methods including Ink Jet, Laser Jet, Flexographic, Screen, and Thermal Transfer techniques. Can be used for identification. Top-coated film for improved ink receptivity. Provides protection from soiling and moisture during handling. Permanent indication remains after prolonged immersion.
Paper backing	Highly absorbent, quickly transports water to show indication. Does not falsely indicate water contact in high humidity exposures. Performance not degraded by past high humidity exposures. Rotary die cuttable. Can readily form variety of labels.
Acrylic adhesive	3M™ Acrylic Adhesive 300 suitable for a wide variety of substrate materials.
2.0 mil film liner	Ideal for rotary die cutting.

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Storage

Store under normal conditions of 60° to 80°F (16° to 27°C) and 40 to 60% R.H. in the original carton.

Shelf Life

To obtain best performance, use this product within 12 months from date of manufacture.

Precautionary Information

Refer to Product Label and Material Safety Data Sheet for health and safety information before using this product. For additional health and safety information, call 1-800-364-3577 or (651) 737-6501.

For Additional Information

To request additional product information or to arrange for sales assistance, call toll free 1-800-251-8634. Address correspondence to: 3M Electronics Markets Materials Division, Building 21-1W-10, 900 Bush Avenue, St. Paul, MN 55144-1000. Our fax number is 651-778-4244 or 1-877-369-2923. In Canada, phone: 1-800-364-3577. In Puerto Rico, phone: 1-787-750-3000. In Mexico, phone: 52-70-04-00.

Important Notice

Before using this product, you must evaluate it and determine if it is suitable for your intended application. You assume all risks and liability associated with such use.

Warranty; Limited Remedy; Limited Liability.

This product will be free from defects in material and manufacture at the time of purchase. 3M MAKES NO OTHER WARRANTIES INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. If this product is defective within the warranty period stated above, your exclusive remedy shall be, at 3M's option, to replace or repair the 3M product or refund the purchase price of the 3M product. Except where prohibited by law, 3M will not be liable for any indirect, special, incidental or consequential loss or damage arising from this 3M product, regardless of the legal theory asserted.



Electronics Markets Materials Division

3M Electronics

3M Center, Building 21-1W-10, 900 Bush Avenue
St. Paul, MN 55144-1000
1-800-251-8634 phone
651-778-4244 fax
www.3M.com/electronics

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