

# 3M™ Ultra-Thin Water Contact Indicator Tape 5558

## Product Description

3M™ Ultra-Thin Water Contact Indicator Tape 5558 is an ultra-thin, 6.0 mil (152 micron) thick tape used to indicate water contact. The tape **permanently changes** from white to red upon direct water contact.

## Features and Benefits

### Film Top Layer

- Printable by thermal transfer, flexographic, and screen printing methods
- Provides improved ink receptivity
- Provides protection from soiling and moisture during handling

### Paper Backing

- Highly absorbent, transports water to show indications

### Acrylic Adhesive

- Very high bond strength to most surfaces including low surface energy plastics such as polypropylene and powder coatings

### Total Construction

- Rotary die cuttable
- Thinner to enable slim electronics device design

## Product Construction

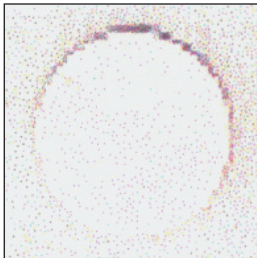
3M™ Ultra-Thin Water Contact Indicator Tape 5558	
Backing	Film / Paper Laminate
Top Film	Polyester
Adhesive	Acrylic
Color	White
Standard Roll Length	180 yards



### 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.

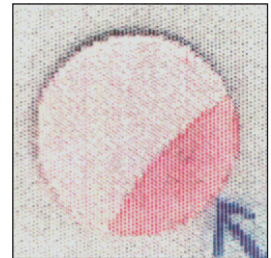
Property	Value	ASTM Test Method
<b>Adhesion to Stainless Steel:</b> (90° Peel Adhesion, 12 in/min peel rate, 15 min Dwell)	36 oz/in width (39 N/100 mm)	D-3330 (modified)
<b>Adhesion to Stainless Steel:</b> (90° Peel Adhesion, 12 in/min peel rate, 72 hr Dwell)	47 oz/in width (51 N/100 mm)	D-3330 (modified)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



Control, t = 0 days



7 days @ 55°C, 95% R.H.

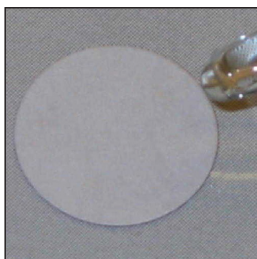


7 days @ 55°C, 95% R.H. indicated w/1 drop H<sub>2</sub>O for one minute at arrow.

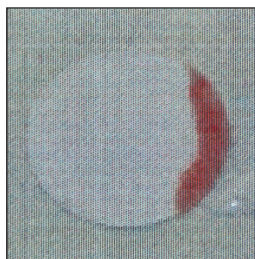
\*Tape is applied to polycarbonate panel and hung vertically in heat/humidity chamber.

### Indication Properties

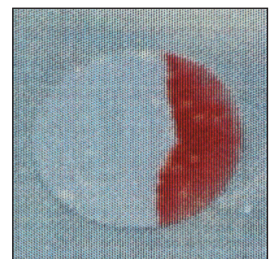
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t = 0 sec.



t = 5 sec.



t = 60 sec.

1 drop of water placed at edge of 1/2" diameter circle @ t = 0 sec.

## General Information

- Tape may be die cut using rotary die cutting process.
- Substrate should be smooth, clean, dry and oil-free to ensure good wet-out and adequate adhesion.
- Adhesive should not be applied at temperatures < 10°C (50°F) [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

- Use as a water contact indicator in handheld or portable electronic devices such as smart phones, tablets and phablets, laptop computers and keyboards, wearable electronic devices, gaming and MP3 players, two-way radios and cordless phones, digital and video cameras, Li-MH batteries and chargers.
- The ultra thin caliper, 6.0 mils total, is suitable for applications with tight design tolerances.

## Key Attributes

Features	Benefits
<b>PET Top Film</b>	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.
<b>Paper Backing</b>	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.
<b>Acrylic Adhesive</b>	3M™ Acrylic Adhesive 300 suitable for a wide variety of substrate materials.
<b>2.0 mil Film Liner</b>	Ideal for rotary die cutting.

## Storage and Shelf Life

The shelf life of 3M™ Ultra-Thin Water Contact Indicator Tape 5558 is 12 months from the manufacture date when stored in original cartons at 21°C (71°F) and 50% relative humidity.

## Regulatory

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

## Technical Information

The technical information, recommendations and other statements contained in this document are based upon tests or experience that 3M believes are reliable, but the accuracy or completeness of such information is not guaranteed.

## Product Use

Many factors beyond 3M's control and uniquely within user's knowledge and control can affect the use and performance of a 3M product in a particular application. Given the variety of factors that can affect the use and performance of a 3M product, user is solely responsible for evaluating the 3M product and determining whether it is fit for a particular purpose and suitable for user's method of application.

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