



Water Contact Indicator Tape

NPE-IATD0108

Technical Data

Product Description

A 10.2 mil thick printable, self-adhesive product that shows area specific, permanent indication when contacted by water. When water comes in contact with the product, the **color RAPIDLY 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 construction is readily die cuttable, making small custom shapes easy to produce. The adhesive is a high performance acrylic protected by a silicone coated film release liner.

Product Construction

Backing	Top Film	Adhesive	Color	Standard Roll Size
Paper	Polyester	Acrylic	White	12" x 180 yd

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.

ASTM Test Method

Adhesion to Stainless Steel: (90° Peel Adhesion, 12 in/min peel rate, 72 hr. Dwell)	82 oz./in. width (88 N/100mm)	D-3330
Adhesion to Polycarbonate (90° Peel Adhesion, 12 in/min peel rate, 72 hr. Dwell)	47 oz./in. width (52 N/100mm)	D-3330
Tape Thickness:	10.2 mils (0.259 mm)	D-3652
Release Liner Thickness:	2.0 mils (0.051mm)	D-3652

Humidity Resistance*:

Control, t=0 days



Control, t=0 days

Indicated w/1 drop H2O for one minute at arrow.



7 days @ 55°C, 95% R.H.



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

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

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- 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" (304.8 mm)
- Temperature resistance is -40 °C to 65 °C for days or weeks and up to 121 °C for minutes or hours.

Shelf Life:

To obtain best performance, use this product within 12 months from date of manufacture and store under normal conditions of 60° to 80°F (16° to 27°C) and 40 to 60% R.H. in the original carton.

Application Ideas

- As a water contact indicator 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.
- Other applications where positive indication of water or aqueous solution contact is desired.

Features

Features	Benefits
Film Top Layer	Printable by thermal transfer, flexographic, and screen printing methods. Can be used for identification. Top coated film for improved ink receptivity Provides protection from soiling and moisture during handling. 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	Excellent UV, chemical, and temperature resistance Very high bond strength to most surfaces including low surface energy plastics such as polypropylene and powder coatings
2.0 mil Film liner	Excellent die cuttability.

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Technical Information and Data

The technical information and data, recommendations, and other statements provided in this document are based on tests or experience which 3M believes to be reliable, but the accuracy or completeness of such information is not guaranteed.

Product Use

Please remember that many factors can affect the use and performance of a 3M product in a particular application. The materials to be used with the 3M product, the surface preparation of those materials, the product selected for use, the conditions in which the product is used, and the time and environmental conditions in which the product is expected to perform are among the many factors that can affect the use and performance of a 3M product. Given the variety of factors that can affect the use and performance of a 3M product, some of which are uniquely within the user's knowledge and control, it is essential that the user evaluate the 3M product to determine whether it is fit for a particular purpose and suitable for the user's method of application.

Limited Warranty and Limited Remedy

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Industrial Adhesives and Tapes Division

3M Center, Building 220-5W-03
St. Paul, MN 55144-1000
1 800 362 3550
1 800 223 7427 Fax on Demand
www.3M.com/industrialtape

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