



Water Contact Indicator Tape

5557NP

Technical Data

March, 2006

Product Description

3M™ Water Contact Indicator Tape 5557NP quickly shows indication when contacted by water. When water comes in contact with the tape surface, it rapidly **changes from white to red**. The tape is designed to withstand heat and humidity aging without giving false indication. It will continue to show indication even after prolonged submersion in water. The adhesive is a high performance acrylic protected by a silicone coated film release liner.

Product Construction

Backing	Adhesive	Release Liner	Color
Paper	Acrylic	Polyester Film	White

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, 72 hr. Dwell)	82 oz./in. width (88 N/100 mm)	D-3330
Adhesion to Polycarbonate: (90° Peel Adhesion, 72 hr. Dwell)	47 oz./in. width (52 N/100 mm)	D-3330
Tape Thickness:	8.6 mils (0.218 mm)	D-3652
Release Liner Thickness:	2.0 mils (0.051 mm)	D-3652
Humidity Resistance:*	55°C, 95% R.H.	



0 hrs. exposure



7 days

Arrow identifies the location of 1 drop of water applied for 1 minute after the specified aging cycle.

Test circles are 1/2" diameter.

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

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General Information

- 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).
- Not useful for indicating contact with other non-aqueous liquids such as oils and organic solvents.
- Standard roll size = 12" x 180 yards (304.8 mm x 165 m).

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.
- As a water contact indicator for other products with sensitivity to aqueous liquids.

Key Attributes

Features	Benefits
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.
Polyester film liner	Excellent die cuttability.

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.

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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.

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: 1-800-634-3577. In Puerto Rico, phone: 1-787-750-3000. In Mexico, phone: 52-70-04-00.

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