



# White Direct Thermal Label Product

## PS016502

Technical Data

February, 2005

### Product Description

3M™ White Direct Thermal Label Product PS016502 is a durable film that offers conformability and dimensional stability. This film is topcoated for direct thermal imaging. This label product utilizes 3M™ Adhesive P1400, which is a high performance tackified acrylic designed for use in demanding environments.

### Construction

Facestock	Adhesive	Liner
.0028 in. White Direct Thermal Polyolefin	P1400 Perm. 18	50# SC Remoist 3.1 mil semi-bleached super calendered kraft sheet

(Calipers are nominal values)

### 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.**

Adhesion properties determined per TLMI Method using 1.0 mil polyester with 1.0 mil of adhesive on a polished stainless steel panel.

<b>Peel Adhesion</b>	2.2 lbs./in. (528 N/m)	TLMI Method, 180° Peel, 12"/min., 1" wide sample
<b>Loop Tack</b>	1.8 lbs./in. (316 N/m)	TLMI Method, 12"/min., 1" wide sample
<b>Shear</b>	4 hours	TLMI Method, 0.25 in. <sup>2</sup> x 500g
<b>Adhesive Coat Weight</b>	1.75 g/100 in. <sup>2</sup> ± 10%	3M Method E10MFP01
<b>Release Range</b>	15 to 50 g/2 in.	TLMI Method, 180° removal, 300 in./min.
<b>Service Temperature</b>	-20°F to 302°F (-29°C to 150°C)	
<b>Application Temperature</b>	40°F to 120°F (5°C to 49°C)	

### Features

- Adhesive dry ingredients are listed by FDA as indirect food contact additives when used in food packaging with minimum opportunity for exposure. See 21 CFR 175.105.
- Adhesive offers good UV resistance and excellent adhesion to a wide variety of substrates, including polyolefins.
- Liner is designed for high-speed die cutting and matrix stripping. This liner has been remoisturized after silicone coating to restabilize the sheet and reduce side curl, an excellent choice for perforation and fanfold applications

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<b>Printing</b>	<ul style="list-style-type: none"><li>• Designed for Direct Thermal printing.</li></ul>
<b>Application Ideas</b>	<ul style="list-style-type: none"><li>• Variable information, product ID, durable goods (consider heat exposure in storage or application).</li></ul>
<b>Storage Conditions</b>	Store under normal conditions of 70°F (21°C) and 50% relative humidity. To minimize the effects of humidity on the products, package the die-cut and printed stock in polyethylene bags. Low density polyethylene (2-4 mils) can help prevent humidity penetration.
<b>Shelf Life</b>	To obtain best performance, use this product within two years from the date of manufacture.
<b>Product Use</b>	All statements, technical information and recommendations contained in this document are based upon tests or experience that 3M believes are reliable. However, many factors beyond 3M's control can affect the use and performance of a 3M product in a particular application, including the conditions under which the product is used and the time and environmental conditions in which the product is expected to perform. Since these factors 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.
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**ISO 9001:2000**

This Industrial Adhesives and Tapes Division product was manufactured under a 3M quality system registered to ISO 9001:2000 standards.



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