

Technical Data Sheet

2 mil Semi Gloss White Polyimide with Clear Polyester Liner - 820

General Description: A 2 mil Polyimide White topcoat semi gloss film with a permanent pressure sensitive acrylic adhesive and a high opacity, specifically designed for thermal transfer printing.

Uses & Features: Designed for barcode or alphanumeric identification of printed circuit boards, or related electronic components. It is the ideal label to withstand surface mount board processes, on either the top or bottom side of the board. It can also be used on the topside of the board in mixed processes, and is recommended for the bottom side that is directly exposed to the wave solder environment.

Properties: The print resists smearing even when the label and board are directly removed from a reflow or wave solder environment. Preheating the labeled product can further enhance print permanence in the case of extreme solvent and/or abrasion exposure, although this is not typically required for board processing applications.

UL Approved Ribbons: Nortec 103 or 140 Thermal Transfer Ribbons.

Approx. Thickness:

	Average Results USA Units	SI Units
Substrate	0.0027 inch	0.068 mm
Adhesive	0.0020 inch	0.050 mm
Total	0.0047 inch	0.118 mm

Adhesion:

	Test Methods	Average Results USA Units	SI Units
Stainless steel	ASTM D1000 20 minute dwell	44 oz/in	48 N/100 mm
	72 hour dwell	72 oz/in	90 N/100 mm
Tack Polyken™ Probe 1 second dwell	ASTM D2979	25 oz	710 grams
Drop Shear	PSTC	> 100 hrs	> 100 hrs

All SI units are mathematically derived from U.S. conventional units.

Note: All values shown are averages and should not be used for specification purposes. Test data and test results contained in this document are for general information only and shall not be relied upon by Via customers for designs and specifications, or be relied on as meeting specified performance criteria. Customers desiring to develop specifications or performance criteria for specific product applications should contact Via for further information

Test Fluid Results:

Solvent A	1 part IPA, 3 parts Mineral Spirits	No visible effect
Solvent B	1,1,1 -Trichloroethane	Solvent deleted per Notice 12
Solvent C	Terpene Defluxer	No visible effect
Solvent D	Saponifier	No visible effect

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Heat/Chemical/Abrasion Resistance¹:

Test Environment	PCS ²	Read Rate ³	PCS after Abrasion	R/R ⁴ after Abrasion
Control	99%	100%	99%	100%
260 °C heat, 5 minutes	99%	100%	99%	100%
Kyzen Corp. Aquanox SSA 30% aqueous, 40-45 °C, 10 minutes ⁵	100%	99%	100%	100%
RE-ENTRY. KNI 2000 Terpene, 40-45 °C, 10 minutes ⁵	98%	100%	98%	100%
Alpha Metals Inc. EC-7R Terpene, 40-45 °C, 10 minutes	98%	100%	98%	100%
Alpha Metals Inc. 2110 Saponifier 6% aqueous, 65-70 °C, 10 minutes	97%	100%	97%	100%
Isopropanol 99%, 82 °C, 10 minutes	99%	100%	99%	100%
Deionized Water, 100 °C 10 minutes	99%	100%	99%	100%

Agency Approvals:

UL File No. MH 29261 Group PGJ12 (Based on labels-ribbons system).

Shelf Life:

1 year below 80 °F (27 °C) and 60% R.H.

Warranty:

Nortec AMI recommends that a selected label type be thoroughly tested to insure it meets all end user requirements. Nortec AMI warrants only the purchaser that its products are free from defects in material and workmanship. Nortec AMI limits its obligation under this warranty and at its option to repair or replace the product. This warranty is in lieu of any other warranty, expressed or implied, including, but not limited to, any implied warranty of merchantability or fitness for a particular purpose. Nortec AMI is not liable for any damages, including lost profits, lost savings, or other incidental or consequential damages arising out of the use of or inability to use such product.

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¹ Samples printed with a recommended thermal transfer ribbon using standard TT printer. Labels printed with 3:1 ratio barcodes with 6 mil X dimension bars. Samples exposed to indicated environments. Abrasion Performance tested with 100 strokes of stainless steel ball (AISI302, 0.3125" diameter) with 300 gram load.

² PCS - Print Contrast Signal. PCS determined with Quick Check 650, 0.005" aperture, 660 nm wavelength. Quick Check 650 manufactured by Photographic Sciences Corp.

³ Read rate determined using PSC 850 laser scanner

⁴ Read Rate

⁵ Followed by 2 minute immersion in demonized water at 100 °C