

# LG-1243

General Description: A 2.0 mil polyester film designed with a permanent pressure sensitive acrylic adhesive and a high opacity, gloss white finish specifically designed for thermal transfer printing. It is designed for barcode or alphanumeric identification of printed circuit boards, or related electronic components. It is the ideal label to withstand many surface mount board processes, but is not well suited for temperatures above 400°F.

PRODUCT DATA		
Property	Test Method	Average Results
Thickness	ASTM D1000	
Substrate / Adhesive		0.0020 in / 0.0008 in
Total		0.0028 in
Adhesion to Stainless Steel	ASTM D-3330	
20 minute dwell / 24 hour dwell		21 oz/in / 40 oz/in
Tack	ASTM D2979	
Polyken™ Probe, 1 second dwell		25 oz
Drop Shear	PSTC	>100 hrs

**Surface Resistivity EOS/ESD S.11.11**    Label Surface 10<sup>7</sup>-10<sup>8</sup> Ohms / Adhesive Surface >10<sup>6</sup> Ohms  
Peel value: <25 volts/sq. in.  
(all S1 units are mathematically derived from U.S. conventional units)

Note: All values shown are averages and should not be used for specificaiton purposes. Test data and test results contained in this document are for general information only and shall not be relied upon by LGI 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 LGI for further information.

## THERMAL TRANSFER PROPERTIES

Samples printed with a recommended thermal transfer ribbon using a Zebra 90Xi 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 (AISI 302, 0.3125" diameter) with 300 gram load.

Test Environment	PCS <sup>1</sup>	Read Rate <sup>2</sup>	PCS After Abrasion	Read Rate After Abrasion
Control	99%	100%	99%	100%
230°C heat, 5 min	99%	100%	99%	100%
Kyzen Corp. Aquanox SSA, 30% aqueous, 40-45°C, 10 min <sup>3</sup>	100%	99%	100%	100%
RE-ENTRY, KNI 200 Terpene, 40-45°C, 10 min <sup>3</sup>	98%	100%	98%	100%
Alpha Metals Inc. EC-7R Terpene, 40-45°C, 10 min <sup>3</sup>	98%	100%	98%	100%
Alpha Metals Inc. 2110 Saponifier, 6% aqueous, 65-70°C 10 min	97%	100%	97%	100%
Isopropanol 99%, 82°C, 10 min	99%	100%	99%	100%
Deionized Water, 100°C, 10 min	99%	100%	99%	100%

<sup>1</sup> PCS – Print Contrast Signal. PCS determined with Quick Check 650, 0.005" aperture, 660 nm wavelength. Quick Check 650 manufactured by Photographic Sciences Corp.

<sup>2</sup> Read rate determined by using PSC 850 laser scanner.

<sup>3</sup> Followed by 2 minute immersion in deionized water at 100°C.

Aqua ox SSA-™ is a trademark of Kyzen Corporation. Zebra© printed is a trademark of Zebra Technologies, Inc. EC-7R™ is a trademark of Petroferm Inc. Polyken™ is a trademark of the Kendell Corporation. RE-ENTRY™ is a registered trademark of Environsolv Inc.

## CHEMICAL RESISTANCE PROPERTIES

Samples printed with recommended thermal transfer ribbons using a Zebra 90Xi printer. Labels printed with alphanumerics and 3:1 ratio barcodes with 6 mil X dimension bars. Samples subjected to 3 cycles of three minute immersions immediately followed by a toothbrush rub after each immersion.

Test Method: MIL-STD-202F, Notice 12, Method 215J

Test Fluid	Results
Solvent A: 1 part IPA, 3 parts Mineral Spirits	No visible effect
Solvent C: Terpene Defluxer	No visible effect
Solvent D: Saponifier	No visible effect
Shelf Life: 1 year below 80°F (27°C) and 60% R.H.	

References: AISI: American Iron and Steel Institute (U.S.A.) ASTM: American Society for Testing and Materials (U.S.A.)  
 PSTC: Pressure Sensitive Tape Council (U.S.A.) SI: International Systems of Units.

The above data represent product averages, allowing for industry accepted variances. This construction should be tested in the end-use conditions to insure that it meets the requirements of the specific application. **Suitability for any given application is the responsibility of the user.**

