



Thermal Transfer Printable Polyimide 1 mil ANTISTATIC GLOSS WHITE

Description:

Stranco S-466 is a 1 mil (25 μ) polyimide film with a high-temperature permanent pressure sensitive acrylic adhesive and a high opacity, gloss white topcoat specifically designed for thermal transfer printing.

Properties:

The S-466 topcoat, in combination with the appropriate thermal transfer ribbon, passes the requirements of MIL-STD-202G, Notice 12, Method 215K and MIL-STD-883E, Notice 4, Method 2015.13. The print resists smearing, even when the board and label 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. Moreover, when the label is peeled from its release liner, less than 100 volts per square inch of electrostatic charge is generated, making it safe to use in a static free work environment, per EIA 625 and 541.

Applications:

- Identification of static sensitive circuit boards
- Static sensitive components
- Static sensitive asset tracking labels
- Static sensitive warranty labeling
- Static sensitive ESD packaging
- Static sensitive caution labels

Special Considerations:

- The surface that you want to label should be clean, dry and free of any surface contamination, such as dust, oil or rust. Isopropyl alcohol would be a recommend solvent to clean the surface.
- When you apply the label, you must use firm pressure to increase the physical contact of the adhesive with the surface of the product.
- Surface resistivity of the label surface will be less than 10¹¹ ohms when measured at 55% relative humidity or higher
- Pressure sensitive adhesives will provide stronger bonds to a warm surface, as compared to a colder one. The adhesive will 'flow' more readily, increasing the surface area and increasing the adhesion peel strength.
- The S-466 top coat & print should not be contacted while exposed to elevated temperature.
- All values shown are averages and should not be used for specification purposes. Adhesion and tack values have a 15% tolerance allotted to the above values stated.
- Test data and test results contained in this document are for general information only and shall not be relied upon by Stranco customers for designs and specifications, or be relied on as meeting specified performance criteria.



Thermal Transfer Printable Polyimide 1 mil ANTISTATIC GLOSS WHITE

Technical Data

Properties	Test Method	Average Results	
		USA Units	SI Units
Thickness	ASTM D1000		
-Substrate		0.0015 inch	0.038 mm
-Adhesive		0.0010 inch	0.025 mm
-Total		0.0025 inch	0.064 mm
Adhesion	80313		
Stainless Steel	20 minute dwell	≥ 27 oz/in	30N/100 mm
	24 hour dwell	≥ 30 oz/in	33N/100 mm
Tack	80155	≥ 1000g	
Label Surface Resistance³	EOS/ESD S.11.11	≥ 10 ⁸ Ω and ≤ 10 ¹¹ Ω	
Peel Voltage (Volts/sq.in.)	80331	< 100 volts	
Static Decay Label Surface	EIA 541	To 1% of initial charge- 0.02 seconds	
Temperature Rating:	Long term	100 hours at 302°F (150°C)	
	Operating	5 minutes at 500°F (260°C)	
	Short term	90 seconds at 572°F (300°C)	
Shelf Life	1 year below 80°F (27°C) and 60% R.H.		
UL File #	PGJ12.MH19503		
UL Tested Ribbons	Ricoh B110CR, C, Armor AXR7+, 8, JPP1, Union Chemicar US300, DNP 510		

Durability Testing

Properties	Test Method	Test Environment	PCS ¹	Read Rate ²
Heat/Chemical	80386	Control 70°C, 5 min.	99%	100%
		Alpha Metals Inc. 2110 Saponifier 6%, aqueous, 70°C, 5 min.	97%	100%
		Isopropanol 99% 70°C, 5 min	99%	100%
		Kyzen XJN+, 30%, 70°C, 5 min.	99%	100%

Chemical Testing

Properties	Test Method	Test Fluid	Results
Chemical Resistance	MIL-STD-202G, Notice 12, Method 215K MIL-STD-883E, Notice 4, Method 2015.13		
		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

Key for Tables on page 2

- All SI units are mathematically derived from U.S. conventional units.
- Labels printed with a recommended thermal transfer ribbon. Labels printed with 6.7 mil X dimension bars at 2:5 ratio. Labels exposed to indicated environments:
- ¹PCS - Print Contrast Signal. PCS determined with Quick Check 650, 0.005" aperture, 660 nm wavelength.
- Quick Check 650 manufactured by : Photographic Sciences Corp.
- ² Read rate determined using a PSC Quick Check 850 laser scanner

Trademarks:

Aquanox SSA-™ is a trademark of Kyzen Corporation.
 EC-7R™ is a trademark of Petroferm Inc.
 RE-ENTRY™ is a registered trademark of Environsolv Inc

References:

ASTM: American Society for Testing and Materials (U.S.A.)
 SI: International Systems of Units.



WARRANTY-LIMITATION

Stranco's products are sold with the understanding that the buyer will test them in actual use and determine for him/herself their adaptability to his/her intended uses. Stranco warrants to the buyer that its products are free from defects in material and workmanship, but limits its obligation under this warranty to replacement of the products shown to Stranco's satisfaction to have been defective, provided that the Buyer has complied with the handling, storage and shelf life requirements as specified by Stranco in applicable materials specifications.

The above warranties extend solely to Buyer and all warranty claims must be made by Buyer. Rework or Replacement shall neither extend nor decrease the original warranty period. The term of all warranty periods shall not exceed thirty (30) days from the date of the original shipment.

THE ABOVE WARRANTIES ARE EXCLUSIVE OF AND IN LIEU OF ALL OTHER WARRANTIES, WRITTEN OR ORAL, EXPRESS OR IMPLIED, STATUTORY OR OTHERWISE. NO IMPLIED STATUTORY WARRANTY OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE SHALL APPLY. STRANCO SHALL NOT BE LIABLE EITHER IN TORT OR IN CONTRACT FOR ANY LOSS OR DAMAGE, DIRECT, INCIDENTAL OR CONSEQUENTIAL, ARISING OUT OF THE USE OR INABILITY TO USE THE PRODUCT, OR FROM DELAY IN THE REPLACEMENT OR REPAIR OF PRODUCTS UNDER THE ABOVE WARRANTY.