



TECHNICAL ASSISTANCE

www.MACtac.com

Version: 2
Approved: WEJ
Date: 12/2004

UL 969 UL Standard for Marking and Labeling Systems (File MH12627)

UL 969 is now an American National Standard (ANSI). It is designated as ANSI/UL 969. This standard for safety contains basic requirements for adhesive attached labels for use as nameplates or markers bearing information, instructions or identification.

These requirements apply to marking and labeling systems used on completed devices, appliances or equipment. Although the total marking or labeling system must ultimately be tested and approved in the completed device, components can also be tested to this standard and recognized by UL. This recognition has value to the producer of the marking system in that he is assured that the component is capable of meeting the conditions that will ultimately be required. Even though the component testing may not always be on the exact substrate (thickness or type) that is ultimately used, it is a strong indication that it should perform well in the application.

Since MACtac has four families of acrylic transfer tapes that were designed for use in bonding nameplates, faceplates and many other materials, testing to the UL 969 standard is a very important part of describing and characterizing the performance of these products. The testing was performed on several types of face materials in a range of thickness that are typically used to produce nameplates and faceplates.

The standard exposes the bonded materials to both “**Indoor**” and “**Outdoor**” use conditions. These include immersion in water, extended exposure to selected high and low temperatures as well as aging in a standard outdoor accelerated weathering device that provides both intense UV light and water spray exposure. The adhesive must maintain the bond of the label or nameplate to the test surface without any significant curling or loosening around the perimeter or other indication of loss of adhesion such as wrinkles or bubbles.

The following tables list the products tested and recognized by UL. It also defines the face material (type and thickness) as well as the minimum and maximum temperature exposure conditions.

A Summary of UL Recognition Conditions for MACfilm Transfer Tapes**
(File MH12627)

Product	Adhesive Thickness	2 mil – 26 mil <u>Aluminum</u>		3 mil – 7 mil <u>Polyester</u>		5 mil – 15 mil <u>Polycarbonate</u>	
		Max. 150°C	Min. -40°C	Max. 100°C	Min. -40°C	Max. 100°C	Min. -40°C
IF-2083	3 mil	x	x	x	x	x	x
IF-2092	2 mil	x	x	x	x	x	x
IF-2093	3 mil	x	x	x	x	x	x
IF-2095	5 mil	x	x	x	x	x	x

Product	Adhesive Thickness	2 mil <u>Aluminum</u>		5 mil <u>Polyester</u>		5 mil <u>Polycarbonate</u>	
		Max. 150°C	Min. -40°C	Max. 100°C	Min. -40°C	Max. 150°C	Min. -40°C
IF-2012	2 mil	x	x	x	x	x	x
IF-2013	3 mil	x	x	x	x	x	x
IF-2015	5 mil			x	x	x	x

** All of the tests were performed on an aluminum substrate. The first table represents the most recent test results and conditions obtained in 2003. The second table contains the results and test conditions from 1987.

IMPORTANT NOTICE: The information given and the recommendations made herein are based on our research and are believed to be accurate, but no guarantee of their accuracy or completeness is made. In every case, user shall determine before using any product in full scale production, or in any way, whether such product is suitable for user's intended use for their particular purpose under their own operating conditions. User assumes all risk and liability whatsoever in connection with their use of any product. The products discussed herein are sold without any warranty as to merchantability or fitness for a particular purpose, or any other warranty, express or implied. No representative of ours has any authority to waive or change the foregoing provisions, and no statement or recommendation not contained herein shall have any force of effect unless in an agreement signed by the officers of seller and manufacturer. Nothing contained herein shall be construed to imply the nonexistence of any relevant patents or to constitute a permission, inducement or recommendation to practice any invention covered by any patent without authority from the owner of the patent. The following is made in lieu of all warranties, express or implied: Seller's and manufacturer's only obligation shall be to replace or credit such quantity of the product proved to be defective at its discretion.

™ Trademark of Morgan Adhesives Company.
 ® Registered Trademark of Morgan Adhesives Company.
 www.MACTac.com

