The Institute for Interconnecting and Packaging Electronic Circuits
2215 Sanders Road • Northbrook, IL 60062-6135

IPC-TM-650
TEST METHODS MANUAL

Number **2.6.8.1**	
Subject **Thermal Stress, Laminate**	
Date **9/91**	Revision **—**
Originating Task Group **N/A**	

1.0 Scope To determine the resistance of the laminate to thermal stress in both the etched and unetched state.

2.0 Applicable Documents

IPC-TM-650 Methods 2.3.6, 2.3.7, 2.3.7.1

3.0 Apparatus

3.1 Solder pot capable of maintaining the temperature on the applicable specification sheet for the material ± 2°F and accepting a 2 x 2 inch test specimen or equivalent.

3.2 Dow Corning Fluid #704 or equivalent.

4.0 Test Specimens

4.1 One (1) test specimen 2 x 2 inch will be cut from each sample sheet for the unetched specimen.

4.2 One (1) test specimen 2 x 2 inch from each sample sheet for the etched specimen.

4.3 The edges of the 2 x 2 inch specimen shall be sanded.

5.0 Procedure

5.1 Etch specimen required for thermal stress etched according to IPC-TM-650, Methods 2.3.6, 2.3.7, or 2.3.7.1.

5.2 Apply silicon fluid to side of specimen that will be in contact with solder.

5.3 Float the specimen on the solder for the time and at the temperature specified on the applicable specification sheet for the material.

5.4 The clad or unclad surface should show no evidence of charring, loss of surface resin, softening delamination, blistering, or weave exposure.