



# IPC-TM-650 TEST METHODS MANUAL

**1.0 Scope** A method for determining the presence of pinholes in metal foil by visual examination after applying a dye penetrant.

**2.0 Applicable Documents** None

**3.0 Test Specimen** Specimen must be a minimum of 12 in. long by the full width of the roll or sheet to perform the dye penetration test.

## 4.0 Apparatus

**4.1** Magnaflux Cleaner SKC-HF and penetrant SKL-HF and suitable brush or roller for application. (See note below.)

**4.2** Microscope and suitable magnification device having a reticle capable of measuring an area of 0.005 in. diameter.

Number <b>2.1.2</b>	
Subject <b>Pinhole Evaluation, Dye Penetration Method</b>	
Date <b>3/76</b>	Revision <b>A</b>
Originating Task Group <b>N/A</b>	

## 5.0 Procedure

**5.1 Cleaning** Clean the untreated side of the metal foil with Magnaflux Spot Check Cleaner SKC-NF followed by a thorough wiping action.

**5.2 Dye Application** Apply Magnaflux Penetrant SKL-HF to the cleaned side of the metal.

**5.3 Pinhole Evaluation** This test is performed by counting the number of dye spots on the treated side of the metal foil which indicates passage of the dye penetrant through the metal foil and measuring the size of pinholes.

**6.0 Notes** The Magnaflux Chemicals may be obtained from the Magnaflux Corporation, 7300 W. Lawrence Avenue, Chicago, Illinois 60656.