National Security Agency (NSA)
Testing of DuPont Solder Masks for
Hydrolytic Stability
VACREL® Photopolymer Film Solder Mask
Technical Bulletin TB-0051

Test Method
The NSA hydrolytic stability test requires solder mask materials to survive 70 days at 100°C, 95% RH without evidence of degradation, such as tackiness, chalking, blistering, cracking, shrinking, liquefying, or reversion; or discoloration to the point where marking and color coding are not distinguishable.

In addition, the solder mask applier/board vendor must submit boards coated with solder mask to the NSA for a process-dependent hydrolytic stability test. This test requires the solder mask to survive 28 days at 100°C, 95% RH, using the same criteria as the 70-day test.

Test Results
The following DuPont solder mask materials have passed the NSA 70-day hydrolytic stability test when processed under the standard operating procedures:

VACREL® 8130  Photopolymer Film
VACREL® 8140  Photopolymer Film

Test Reference
NSA does not publish the test results, and satisfactory completion of this test does not imply suitability for use in a particular application. However, NSA does keep the test records on file and will answer any questions.
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