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**Insulator Kit, Undercarpet**

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**1. SCOPE****1.1. Content**

This specification covers the performance, tests and quality requirements for the AMP\* undercarpet insulator kit.

**1.2. Qualification**

When tests are performed on the subject product line, the procedures specified in AMP 109 series specifications shall be used. All inspections shall be performed using the applicable inspection plan and product drawing.

**2. APPLICABLE DOCUMENTS**

The following documents form a part of this specification to the extent specified herein. Unless otherwise specified, the latest edition of the document applies. In the event of conflict between the requirements of this specification and the product drawing, the product drawing shall take precedence. In the event of conflict between the requirements of this specification and the referenced documents, this specification shall take precedence.

**2.1. AMP Documents**

- A. 109-1: General Requirements for Test Specifications
- B. 109 Series: Test Specifications as indicated in Figure 1. (Comply with MIL-STD-202, MIL-STD-1344 and EIA RS-364)
- C. Corporate Bulletin 401-76: Cross-reference between AMP Test Specifications and Military or Commercial Documents
- D. 114-6008: Application Specification
- E. 501-355: Test Report

**2.2. Commercial Standards**

CSA C22.2 No 222-M1986: Type FCC Undercarpet Wiring System

**3. REQUIREMENTS****3.1. Design and Construction**

Product shall be of the design, construction and physical dimensions specified on the applicable product drawing.

**3.2. Materials**

Polyvinylchloride sheet with an adhesive backed foam layer and a release liner.

**3.3. Ratings**

- A. Voltage: 300 vac
- B. Temperature: 0° to 60°C

**3.4. Performance and Test Description**

The product is designed to meet the electrical performance requirements specified in Figure 1. Unless otherwise specified, all tests are performed at ambient temperature.

**3.5. Test Requirements and Procedures Summary**

Test Description	Requirement	Procedure
Examination of product.	Meets requirements of product drawing and AMP Spec 114-6008.	Visual, dimensional and functional per applicable quality inspection plan.
<b>ELECTRICAL</b>		
Dielectric withstanding voltage.	1500 vac at sea level. 1 minute hold with no breakdown or flashover. 150 milliamperes maximum leakage current.	AMP Spec 109-29-1. Test between adjacent contacts of samples with samples submerged in 10mm of tap water for 1 hour.

Figure 1

**3.6. Product Qualification and Requalification Test Sequence**

Test or Examination	Test Group (a)
	1
Examination of product	Test Sequence (b)
	1,3
Dielectric withstanding voltage	2

**NOTE**

- (a) See Para 4.1.A.
- (b) Numbers indicate sequence in which tests are performed.

Figure 2

**4. QUALITY ASSURANCE PROVISIONS**

**4.1. Qualification Testing**

**A. Sample Selection**

Insulator kits, taps and splices shall be prepared in accordance with applicable Instruction Sheets and shall be selected at random from current production. Test group shall consist of : 5, 3 conductor, 12 AWG splice assemblies; 5, 5 conductor to 3 conductor, 12 AWG tap assemblies; and 5, 5 conductor to 3 conductor, 10 AWG tap assemblies.

**B. Test Sequence**

Qualification inspection shall be verified by testing samples as specified in Figure 2.

**4.2. Requalification Testing**

If changes significantly affecting form, fit or function are made to the product or manufacturing process, product assurance shall coordinate requalification testing, consisting of all or part of the original testing sequence as determined by development/product, quality and reliability engineering.

**4.3. Acceptance**

Acceptance is based on verification that the product meets the requirements of Figure 1. Failures attributed to equipment, test setup or operator deficiencies shall not disqualify the product. When product failure occurs, corrective action shall be taken and samples resubmitted for qualification. Testing to confirm corrective action is required before resubmittal.

**4.4. Quality Conformance Inspection**

Applicable AMP quality inspection plan will specify the sampling acceptable quality level to be used. Dimensional and functional requirements shall be in accordance with the applicable product drawing and this specification.