

1. INTRODUCTION

1.1 Purpose

Tests were performed on sleeves for 6.35 E- SPRING contact receptacles high temperature to determine its conformance to the requirements of Tyco Electronics AMP Product Specification 108-22072 Rev C.

1.2 Scope

This report covers the electrical and mechanical performance of the sleeves for 6.35 E- SPRING contact receptacles high temperature manufactured by the Tyco Electronics AMP España S. A. Tests were performed between February 04, 2004 and April 04, 2005.

1.3 Conclusion

Sleeves for 6.35 E-SPRING contact receptacles high temperature P.N 9-336524-4 and 9-1644125-5 meet the electrical and mechanical, performance requirements of Tyco Electronics AMP Product Specification 108-22072 Rev. C.

1.4 Product Description

Sleeves for 6.35 E-SPRING contact receptacles high temperature sleeves P.N 9-336524-4 and 9-1644125-5 has been manufactured from polyamide 6/6 V0.

1.5 Test Samples

The test samples were randomly selected from normal current production lots, all part numbers were used for test.

1.6 Qualification Test Sequence

	TEST GROUPS	
	1	2
Quantity of samples	30	42
TEST OR EXAMINATION	Test Sequence	
Product examination	1	1
Contact insertion force	2	
Terminal retention force inside the sleeve	3	4
Insulation resistance		3
Aging test		2

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Rev. A, Issue			

2. SUMMARY OF TESTING

2.1 Examination of product – All Groups

All samples submitted for testing were selected from normal current production lots. They were inspected and accepted by the Quality Assurance Department.

2.2 Contact Insertion force – Group 1

Contact insertion forces were less or equal than 10.3 N. (20N max.)

2.3 Termination retention force values inside the sleeve – Group 1, 2

Retention forces inside the sleeve values were higher or equal than 100.7 N (samples at room conditions). (60N min.)

2.4 Insulation resistance – Group 2

Insulation resistance values were higher or equal than 7.0E+10 ohm. (>10E+6 ohm)

2.5 Aging test (168 h)

No physical damage occurred to the samples after stress relaxation test.

3. TESTS METHODS

3.1 Examination of product (Reference Standard: IEC 60512, test 1a, 1b)

Product drawings and inspections plans were used to examine the samples. They were examined visually and functionally.

3.2 Contact Insertion forces (Reference Standard: IEC 60512 test 15a)

Fixing the sleeve into a support by pulling cable at rate of 25mm/min and in distance of 15mm from the insulation crimp. The terminal must remain free to pivot during the insertion. Samples must contain a humidity degree between 1 and 2% of their weight.

3.3 Termination retention force values inside the sleeve (Reference Standard: IEC 60512 test 15d)

Measure the extraction force pulling the cable at a rate of 25mm/min. After making the insertion test, the samples have been stored in room conditions (temperature between 21 and 25 °C and relative humidity between 45 and 55%) at least 24 hours before making the extraction test.

3.4 Insulation resistance (Reference Standard: IEC 60512 test 3a)

500Vcc during 1 minute applied between inserted terminal and metallic wrapper in contact with sleeve external wall.

3.5 Aging test (Reference Standard: IEC 60512 test 11c)

Samples into an oven at 170°C for 168 hours (1 week).