INTERNATIONAL STANDARD 1965

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION • МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ • ORGANISATION INTERNATIONALE DE NORMALISATION

Aluminium terminal ends for crimping to aircraft aluminium electrical cables

First edition — 1973-02-15

UDC 629.7.064.5 : 621.315.687

Ref. No. ISO 1965-1973 (E)

Descriptors : aircraft, aircraft equipment, electrical cables, electric lugs, electric terminals, aluminium, dimensions, characteristics.

Price based on 2 pages

FOREWORD

ISO (the International Organization for Standardization) is a worldwide federation of national standards institutes (ISO Member Bodies). The work of developing International Standards is carried out through ISO Technical Committees. Every Member Body interested in a subject for which a Technical Committee has been set up has the right to be represented on that Committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work.

Draft International Standards adopted by the Technical Committees are circulated to the Member Bodies for approval before their acceptance as International Standards by the ISO Council.

International Standard ISO 1965 was drawn up by Technical Committee ISO/TC 20, *Aircraft and space vehicles.*

It was approved in May 1970 by the Member Bodies of the following countries :

Australia	Greece	South Africa, Rep. of
Belgium	India	Spain
Brazil	Israel	Switzerland
Canada	Italy	Turkey
Czechoslovakia	Japan	United Kingdom
Egypt, Arab Rep. of	Netherlands	U.S.S.R.
France	New Zealand	
Germany	Romania	

The Member Body of the following country expressed disapproval of the document on technical grounds :

U.S.A.

Printed in Switzerland

Aluminium terminal ends for crimping to aircraft aluminium electrical cables

1 SCOPE AND FIELD OF APPLICATION

This International Standard specifies the characteristics of aluminium terminal ends suitable for crimping to aircraft electrical cables with aluminium conductors in locations in which the stabilized conductor temperature does not exceed 105 °C.

2 TERMINOLOGY

The terminology used in this International Standard is in conformity with ISO 1966, *Crimped joints for aircraft electrical cables.*

3 MATERIALS

The terminal ends shall be made from aluminium or aluminium alloy.

4 DIMENSIONS

The dimensions of the terminal ends shall satisfy the following criteria :

4.1 The dimensions of the terminal ends shall be those given in the Table.

4.2 The palm width of the terminal ends shall be between two and a quarter times and three times the nominal ends stud diameter.

4.3 The minimum area of any cross-section of the palm at right angles to the axis of the cable shall be sufficient to pass continuously the full rated current of the cable which the terminal ends accept.

4.4 The maximum of any section of the crimped barrel at right angles to the axis of the cable shall not exceed the palm width.

5 FINISH

5.1 The palm surface of the terminal ends shall be flat and parallel within 0,1 mm (0.004 in) total indicator reading before plating.

5.2 Stud holes shall be free from burrs and rough edges.

5.3 Terminal ends shall be plated with tin to the satisfaction of the approving authority.

6 INHIBITORS

The terminal ends shall be filled by the manufacturer with an inhibiting compound and subsequently sealed for transit and storage for the purpose of preventing ingress of moisture and possible reoxidation after crimping.

7 INSPECTION

The terminal ends shall be inspected for compliance with the approved drawings, and shall be free from harmful defects.

8 MARKINGS

8.1 Terminal ends shall be durably and legibly marked with the letters "AL", the cable size number (e.g. AL/2), and the manufacturer's identification.

8.2 The identification marking shall not be applied to the electrical contact area of the palm, i.e. within the subscribed diameter of the palm, of terminal ends nor to any part of the crimping barrel subject to deformation upon crimping.

9 PERFORMANCE

When crimped, the terminal ends shall satisfy the performance requirements of ISO 1966.

10 INSTALLATION

10.1 The contact surface area on which the aluminium terminal ends are mounted should be not less than that of the palm of the terminal end. For optimum performance the design of the connection should be such that the contact pressure is between 5,5 and 8,3 MN/m² (800 and 1 200 lbf/in²).