



SLOVENSKI STANDARD
oSIST prEN 3475-606:2023
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Aeronavtika - Električni kabli za uporabo v letalnikih - Preskusne metode - 606.
del: Preskus s stenjem na izolaciji iz tekstilne pletenine

Aerospace series - Cables, electrical, aircraft use - Test methods - Part 606: Wicking Test on Textile Braid Insulation

Luft- und Raumfahrt - Elektrische Leitungen für Luftfahrtverwendung - Prüfverfahren - Teil 606: Prüfung der Dochtwirkung auf die Textilgeflechtisolierung

Série aérospatiale - Câbles électriques à usage aéronautique - Méthodes d'essais - Partie 606: Effet de mèche sur isolant textile

Ta slovenski standard je istoveten z: prEN 3475-606

ICS:

29.060.20	Kabli	Cables
49.060	Letalska in vesoljska električna oprema in sistemi	Aerospace electric equipment and systems

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Aerospace series - Cables, electrical, aircraft use - Test methods - Part 606: Wicking Test on Textile Braid Insulation

Série aérospatiale - Câbles électriques à usage
aéronautique - Méthodes d'essais - Partie 606: Effet de
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Luftfahrtverwendung - Prüfverfahren - Teil 606:
Prüfung der Dochtwirkung auf die
Textilgeflechtisolierung

This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee ASD-STAN.

If this draft becomes a European Standard, CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

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Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
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European foreword

This document (prEN 3475-606:2023) has been prepared by the Aerospace and Defence Industries Association of Europe — Standardization (ASD-STAN).

After enquiries and votes carried out in accordance with the rules of this Association, this document has received the approval of the National Associations and the Official Services of the member countries of ASD-STAN, prior to its presentation to CEN.

This document is currently submitted to the CEN Enquiry.

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prEN 3475-606:2023 (E)**1 Scope**

This document specifies the test methods to evaluate the wicking of wire and cable insulated with textile braid.

It is intended to be used together with EN 3475-100.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

No terms and definitions are listed in this document.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <https://www.electropedia.org/>

4 Preparation of the dye solution

Prepare dye solution as follows:

- Rhodamine B dye: 20,00 mg \pm 0,40 mg;
- Ethyl alcohol: 30,00 ml \pm 0,60 ml;
- Aerosol OT: 3,00 ml \pm 0,06 ml;
- Distilled water to make: 2,00 l \pm 0,04 l.

Dissolve dye in the ethyl alcohol before adding to the water. Keep solution stoppered. Solution can be kept for 30 days at the maximum.

A portion of the solution can only be used once. A new portion of the solution shall be used for each additional test conducted.

5 Preparation of specimen

Measure and square-cut at least 155 mm of each specimen. Remove 5 mm of braid from one end of specimen and wrap remaining braid with 5 mm wide of yellow tape. Two turns minimum wrapping shall start at the end of exposed polyimide. Take a clear tape (15 mm wide), to wrap and form cylinder around the yellow tape wrapped (Figure 1).

Place empty cup on calibrated scale and set balance to 0 g, pour 15 g of epofix resin in the cup. Set balance again to 0 g and add 2 g of hardener. Stir the mixture to obtain a homogeneous liquid. Place the samples in a vertical position, and fill the cylindrical ends with the mixture (resin + hardener). Let the mixture harden for 24 h (Figure 2).

Remove all ribbons from the protected sample ends. Mark samples from braid end to 50 mm (Figure 3).



Figure 1



Figure 2



Figure 3

6 Test method

Place the specimens upright with its lower 50 mm immersed in Rhodamine solution in an open test container.

Condition for 24 h at room temperature in a draft-free area.

7 Final measurement

After 24 h, remove the specimens from the container and allow it to dry without wiping the ink from the surface.

Examine the specimens for wicking of the textile braid insulation. Determine, to the nearest 1,0 mm, the distance the ink solution has travelled in the textile braid by wicking action.

Only wicking of the textile braid insulation shall be observed and measured. The ink travel between insulation layers or between insulation and conductor shall not be considered.

8 Requirement

The distance measured due to wicking action of the dye solution or ink shall not be more than the one specified in the product standard.