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Responsible committee: ACE/6 Aerospace avionic electrical and fibre optic technology

Interested committees:

Title: Draft BS EN 4641-103 Aerospace series - Cables, optical 125 μm diameter cladding. Part 103: Semi-loose, ruggedized simplex construction 62,5/125 μm GI fibre nominal 2,74 mm, outside diameter - Product standard.

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Responsible Committee Secretary: Committee Service Centre (BSI)

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Full document details: 23/30476503 DC

Introduction

This draft standard is based on national and international discussions. Your comments on this draft are invited and will assist in the preparation of the consequent standard.

For international standards, comments will be reviewed by the relevant UK national committee before sending the consensus UK vote and comments to the international committee, which will then decide appropriate action. If the international standard is approved, it is usual for the text to be published as a British Standard.

For national standards, comments will be reviewed by the relevant UK national committee and the resulting standards published as a British Standard.

UK Vote

Please indicate whether you consider the UK should submit a negative (with supporting technical reasons) or positive vote on this draft. Please indicate if you are aware of any reason why this draft standard should not be published as a British Standard.

Submission of Comments

- **Annotated drafts are not acceptable and will be rejected.**
- All comments should be submitted online at <https://standardsdevelopment.bsigroup.com/>. You will need to register in order to comment.

Template for comments and secretariat observations

Date: xx/xx/20xx	Document: ISO/DIS xxxx
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1	2	(3)	4	5	(6)	7
MB	Clause No./ Subclause No./Annex (e.g. 3.1)	Paragraph/ Figure/Table/Note	Type of comment	Comment (justification for change) by the MB	Proposed change by the MB	Secretariat observations on each comment submitted
	3.1	Definition 1	ed	Definition is ambiguous and needs clarifying.	Amend to read '...so that the mains connector to which no connection...'	
	6.4	Paragraph 2	te	The use of the UV photometer as an alternative cannot be supported as serious problems have been encountered in its use in the UK.	Delete reference to UV photometer.	

English Version

Aerospace series - Cables, optical 125 μm diameter
cladding - Part 103: Semi-loose, ruggedized simplex
construction 62,5/125 μm GI fibre nominal 2,74 mm,
outside diameter - Product standard

Série aérospatiale - Câble, optique, diamètre extérieur
de la gaine optique 125 μm - Partie 103 : Câble à
structure semi libre, renforcée, monovoie fibre à
gradient d'indice 62,5 μm /125 μm , diamètre extérieur
2,74 mm - Norme de produit

Luft- und Raumfahrt - Lichtwellenleiterkabel,
Claddingdurchmesser 125 μm - Teil 103: Halbfester
Leiteraufbau, widerstandsfähige Simplexkonstruktion
GI 62,5 μm /125 μm Faser, Kabelaußendurchmesser
2,74 mm - Produktnorm

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.

This draft European Standard was established by CEN in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

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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.

Warning : This document is not a European Standard. It is distributed for review and comments. It is subject to change without notice and shall not be referred to as a European Standard.



EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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European foreword

This document (prEN 4641-103:2023) 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.

This document will supersede EN 4641-103:2010.

The main changes with respect to the previous edition are as follows:

- EN 4641-103 (P1), 11/2010 — Editorial improvements and update of the scope to change “single mode fibre core” to “simplex fibre”.

1 Scope

This document specifies the general characteristics, conditions for qualification, acceptance and quality assurance for a fibre optic cable with a 62,5 µm/125 µm simplex fibre, 2,74 mm outside cable diameter and of semi-loose construction. The basic construction is the cable defined in EN 4641-102 with added sheaths for ruggedized usages.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 2424, *Aerospace series - Marking of aerospace products*

EN 2812, *Aerospace series - Stripping of electric cables*

EN 3475-601, *Aerospace series - Cables, electrical, aircraft use - Test methods - Part 601: Smoke density*

EN 3475-602, *Aerospace series - Cables, electrical, aircraft use - Test methods - Part 602: Toxicity*

EN 3745-100, *Aerospace series - Fibres and cables, optical, aircraft use - Test methods - Part 100: General*

EN 3745-201, *Aerospace series - Fibres and cables, optical, aircraft use - Test methods - Part 201: Visual examination*

EN 3745-203, *Aerospace series - Fibres and cables, optical, aircraft use - Test methods - Part 203: Cable dimensions*

EN 3745-205, *Aerospace series - Fibres and cables, optical, aircraft use - Test methods - Part 205: Cable longitudinal dimensional stability*

EN 3745-301, *Aerospace series - Fibres and cables, optical, aircraft use - Test methods - Part 301: Attenuation*

EN 3745-306, *Aerospace series - Fibres and cables, optical, aircraft use - Test methods - Part 306: Variation of attenuation during temperature cycling*

EN 3745-402, *Aerospace series - Fibres and cables, optical, aircraft use - Test methods - Part 402: Temperature cycling*

EN 3745-404, *Aerospace series - Fibres and cables, optical, aircraft use - Test methods - Part 404: Thermal shock*

EN 3745-406, *Aerospace series - Fibres and cables, optical, aircraft use - Test methods - Part 406: Cold bend test*

EN 3745-407, *Aerospace series - Fibres and cables, optical, aircraft use - Test methods - Part 407: Flammability*

EN 3745-503, *Aerospace series - Fibres and cables, optical, aircraft use - Test methods - Part 503: Scrape abrasion*