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

Interested committees:

Title: Draft BS EN 4641-102 Aerospace series - Cables, optical 125 µm outside diameter cladding

Part 102: Semi-loose 62,5/125 µm GI fibre nominal 1,8 mm outside diameter - Product standard

Please notify the secretary if you are aware of any keywords that might assist in classifying or identifying the standard or if the content of this standard

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Introduction

This draft standard is based on European discussions in which the UK has taken an active part. Your comments on this draft are welcome and will assist in the preparation of the consequent British Standard. Comment is particularly welcome on national, legislative or similar deviations that may be necessary.

Even if this draft standard is not approved by the UK, if it receives the necessary support in Europe, the UK will be obliged to publish the official English Language text unchanged as a British Standard and to withdraw any conflicting standard.

UK Vote

Please indicate whether you consider the UK should submit a negative (with reasons) or positive vote on this draft.

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- The guidance given below is intended to ensure that all comments receive efficient and appropriate attention by the responsible BSI committee. **Annotated drafts are not acceptable and will be rejected.**
- All comments must be submitted, preferably electronically, to the Responsible Committee Secretary at the address given on the front cover. Comments should be compatible with version 6.0 or version 97 of Microsoft Word for Windows, if possible; otherwise comments in ASCII text format are acceptable. **Any comments not submitted electronically should still adhere to these format requirements.**
- All comments submitted should be presented as given in the example below. Further information on submitting comments and how to obtain a blank electronic version of a comment form are available from the BSI website at:
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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.	

ASD/TC

Date: 2016 -02

EN 4641-102:2009

ASD/TC

Secretariat:

**Aerospace series — Cables, optical 125 µm outside diameter cladding —
Part 102: Semi-loose 62,5/125 µm GI fibre nominal 1,8 mm outside diameter
— Product standard**

*Luft- und Raumfahrt — Lichtwellenleiterkabel, Claddingdurchmesser 125 µm — Teil 102: Halbfester Leiteraufbau
GI 62,5/125 µm, Faser Kabelaußendurchmesser 1,8 mm — Produktnorm*

*Série aérospatiale — Câble, optique, diamètre extérieur de la gaine optique 125 µm — Partie 102 : Câble à
structure semi libre, fibre à gradient d'indice 62,5/125 µm, diamètre extérieur 1,8 mm — Norme de produit*

ICS:

Descriptors:

Document type: European Standard
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Foreword

This document (EN 4641-102:2009) 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 Standard has received the approval of the National Associations and the Official Services of the member countries of ASD, prior to its presentation to CEN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by August 2009, and conflicting national standards shall be withdrawn at the latest by August 2009.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

1 Scope

This product standard specifies the general characteristics, conditions for qualification, acceptance and quality assurance for a fibre optic cable with a 62,5/125 μm Graded Index fibre nominal, 1,8 mm outside diameter and of semi-loose buffer construction.

2 Normative references

The following referenced documents are indispensable for the application 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 electrical cables* ¹

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

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

EN 3838, *Aerospace series — Requirements and tests on user-applied markings on aircraft electrical cables* ¹

EN 3909, *Aerospace series — Test fluids and test methods for electric components and sub-assemblies*

EN 4641-001, *Aerospace series — Cables, optical 125 μm diameter cladding — Part 001: Technical specification* ¹

EN 9133, *Aerospace series — Quality management systems — Qualification procedure for aerospace standard parts*

ISO 1817, *Rubber, vulcanized — Determination of the effect of liquids*

ISO 11075, *Aircraft — De-icing/anti-icing fluids — ISO type I*

ISO 11078, *Aircraft — De-icing/anti-icing fluids — ISO types II, III and IV*

TR 4647, *Aerospace series — Fibres and cables, optical aircraft use — Technical Report — Termination procedure for EN 4639 contact* ²

STANAG 3748, *Hydraulic fluid, petroleum (H-515, H-520 and C-635) and polyalphaolefin (H-537, H-538 and H-544)* ³

MIL-PRF-87252C, *Coolant fluid, hydrolytically stable, dielectric* ⁴

AMS 1428, *Fluid, aircraft deicing/Anti-icing, non-Newtonian (pseudoplastic), SAE types II, III, and IV* ⁵

NSA 307110, *Fluid — Hydraulic phosphate ester — Base fire resistant*

* And all parts quoted in this standard.

1 Published as ASD Prestandard at the date of publication of this standard.

2 In preparation at the date of publication of this standard.

3 Published by: NATO Military Agency for Standardization (MAS); B-1110 Brussels, Belgium.

4 Published by: Department of Defense (DoD), the Pentagon, Washington, DC 20301, USA.

5 Published by: Society of Automotive Engineers, Inc. (SAE), 400 Commonwealth Drive, Warrendale, PA 15096-0001, USA.