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Irish Standard  
I.S. EN 4641-001:2009

# Aerospace series - Cables, optical, 125 $\mu\text{m}$ diameter cladding - Part 001: Technical specification

## I.S. EN 4641-001:2009

*Incorporating amendments/corrigenda issued since publication:*

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English Version

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

Série aérospatiale - Câbles, optiques, diamètre extérieur de  
la gaine optique 125 µm - Partie 001 : Spécification  
technique

Luft- und Raumfahrt - Kabel, optisch, 125 µm  
Außendurchmesser des Fasermantels - Teil 001:  
Technische Spezifikation

This European Standard was approved by CEN on 7 February 2009.

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This European Standard exists 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 Management Centre has the same status as the official versions.

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## **Foreword**

This document (EN 4641-001:2009) 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of an identical text or by endorsement, at the latest by September 2009, and conflicting national standards shall be withdrawn at the latest by September 2009.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 standard specifies the general characteristics, conditions for qualification, acceptance and quality assurance, as well as the test methods and groups for fibre optic cables with a cladding of 125 µm outside diameter.

## 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 2591-602, *Aerospace series — Elements of electrical and optical connection — Test methods — Part 602: Optical elements — Variation of attenuation and optical discontinuity.*

EN 3745-100:2008\*, *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.* <sup>1)</sup>

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

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

IEC 60793-1-42, *Optical fibres — Part 1-42: Measurement methods and test procedures — Chromatic dispersion.*

ISO 2574, *Aircraft — Electrical cables — Identification marking.*

## 3 Terms and definitions, symbols and abbreviations

For the purposes of this document, the following terms and definitions and the symbols and abbreviations given in EN 3745-100:2008 apply.

**3.1  
tight structure cable**  
cable where there is very limited movement of the fibre within the buffer and other elements of the cable construction; typically designed for use with non-pull proof fibre optic contacts

**3.2  
semi-loose structure cable**  
cable where the fibre is designed to move within the buffer and other elements of the cable construction; typically designed for use with full pull proof fibre optic contacts

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\* And all parts quoted in this standard.

1) In preparation at the date of publication of this standard.

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