



NSAI
Standards

Irish Standard
I.S. EN 3745-100:2008

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

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Foreword

This document (EN 3745-100:2008) 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.

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1 Scope

This standard defines terms for optical fibres and cable.

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.

IEC 50(731), *International Electrotechnical Vocabulary — Chapter 731: Optical fibre communication*.

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

**3.1
optical fibre**
a dielectric waveguide whose core consists of optically transparent material of low attenuation and whose cladding consists of optical transparent material of lower refractive index than that of the core (see Figure 1)

NOTE In general the optical fibre is furnished with a primary coating (see Figure 1).

**3.2
core**
the central region of an optical fibre through which most of the optical power is transmitted (see Figure 1)

**3.3
cladding**
dielectric material surrounding the core of the optical fibre (see Figure 1)

**3.4
fibre coating**
the first protective coating directly applied to the fibre during its manufacture (see Figure 1)

NOTE Its purpose is to maintain original optical performance of the fibre and to provide minimum mechanical properties.

**3.5
optical cable**
an assembly consisting of optical fibre, inner sheath and where applicable strength members and jacket (see Figure 1)

**3.6
multiple fibre cable**
a construction in which a number of fibres are placed together in a cable

**3.7
buffer**
a material which surrounds and is immediately adjacent to a primary coating and provides mechanical protection (see Figure 1)

**3.8
strength members**
a protective envelope added to the inner sheath when necessary to improve the properties of mechanical resistance (see Figure 1)

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