Indian Standard

OPTICAL FIBRES

PART 1 MEASUREMENT METHODS AND TEST PROCEDURES

Section 44 Cut-Off Wavelength

1 Scope

This part of IEC 60793 establishes uniform requirements for measuring the cut-off wavelength of single-mode optical fibre, thereby assisting in the inspection of fibres and cables for commercial purposes.

This standard gives the methods for measuring the cut-off wavelength of fibre and cable

There are two methods for measuring cable cut-off wavelength, λ_{cc}:

- Method A: using uncabled fibre;
- Method B: using cabled fibre.

There is only one method (Method C) for measuring fibre cut-off wavelength, λ_c .

The test method in this standard describes procedures for determining the cut-off wavelength of a sample fibre in either an uncabled condition (λ_c) or in a cable (λ_{cc}). Three default configurations are given here: any different configuration will be given in a detail specification. These procedures apply to all category B and C fibre types (see Normative references).

All methods require a reference measurement. There are two reference-scan techniques, either or both of which may be used with all methods:

- bend-reference technique;
- multimode-reference technique using category A1 multimode fibre.

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 60793-1-1, *Optical fibres – Part 1-1: Measurement methods and test procedures – General and guidance*

IEC 60793-1-40, *Optical fibres – Part 1-40: Measurement methods and test procedures – Attenuation*