

INTERNATIONAL TELECOMMUNICATION UNION

ITU-T RECOMMENDATION SUMMARY

Rec. No. : L.12

Title : Optical fibre joints

Study Group : VI - Outside Plant

Version : New

Date of adoption : 1992

Notes :

Optical fibre cables have become common in telecommunications for trunk, undersea and feeder routes and are now expanding into the subscriber and indoor sections of the network. They are installed in all environments: aerial, duct, cable tunnels, direct buried and on-premises. Thus, optical fibre cables are exposed to all of the hazards that copper cables are. An important part of any installed optical fibre cable system is the fibre joint, which can have a great influence on the transmission quality and maintenance costs. The loss of a joint can equal the insertion loss of as much as one half to one kilometre of fibre.

Recommendation L.12 advises on the mechanical, environmental and optical characteristics of optical fibre joints, and advises on suitable testing methods. Further information is provided in the CCITT Manual "Construction, installation, jointing and protection of optical fibre cables".

Recommendation L.12:

- refers to the jointing of optical fibre cables that are used for telecommunications networks, in duct, tunnel, buried, aerial, and underwater installations;
- deals with loss factors of optical fibre joints in multimode graded index and single-mode fibres;
- deals with optical and physical characteristics of optical fibre joints concerned;
- acknowledges there are two basic types of optical fibre joints (fusion and mechanical) with numerous design variations;
- advises on appropriate test methods for optical fibre joints.

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