




These single-mode fibres are commonly utilized where low attenuation rates are required over long distances. They have much smaller core diameters than multi-mode fibres so the light does not reflect as often, reducing losses to a minimum and guaranteeing an enormous range.

Most fibre optic cables are suitable for indoor or outdoor use & many for running in ducts. Versions with SWA or CST are suitable for direct burial.

**Construction**

9/125µm fibres with coloured coating  
 fibres are either contained in a loose tube (LT) or tight buffered (TB)  
 optional steel wire armour (SWA) or corrugated steel tape armour (CST)  
 sheath usually low smoke zero halogen (LSZH)

<b>Technical</b>	
fibre diameter:	core 9µm (micrometres), cladding 125µm
light reflection pattern:	
number of fibres	4, 6, 8, 12, 16 or 24 core versions commonly available
OS1 utilization:	commonly used in tight buffered cables for runs up to 2km
OS2 utilization:	commonly used in loose tube cables for runs up to 5/10km
loose tube (LT):	fibres are enclosed within protective tube(s), usually containing a water resistant gel. Ideal for external use and commonly available with SWA or CST mechanical protection.
tight buffered (TB):	fibres have an additional tough waterproof layer (usually 900µm ) over the normal fibre coating. Designed for runs around multiple bends and not usually armoured.

OFL Bandwidth @ 850/1300nm	EMB @ 850nm	Min. Reach @ 1Gb/s	Min. Reach @ 10Gb/s	Min. Reach @ 40 & 100Gb/s
No Requirement	No Requirement	5km	10km	10/40km
Figures shown are industry standard, please check if critical.				

**LSZH Properties:** fairly tough & flexible material resistant to a wide range of oils & chemicals. Guarantees max. 0.5% HCL emissions if burnt. Also known as LSOH & LSHF (low smoke zero halogen/halogen free).

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