

Blown Fibre Tube Cables

SIROCCO^{XS} blown fibre bundles (EPFU) are blown into pre-installed tubes to form a communications network. There are two types of tube: internal LSOH tubes and external polyethylene tubes.

Both are designed to support the installation of *SIROCCO*^{XS} blown fibre bundles by having a low friction coating on the inside of the tubes. The tubes are then packaged to suit the application i.e.

A number of LSOH tubes inside an LSOH sheath for internal applications, as below.

A number of polyethylene tubes inside an HDPE sheath for installation in ducts with, where necessary, additional layers of protection for more onerous environments, see opposite.

Tests to Primary Tube & Cable Assembly

As part of the approval process for *SIROCCO*^{XS} blown tube cables, there are a wide range of test parameters that the cables must meet or pass. These tests involve the primary tube and the finished cables.

Tensile: tested in accordance with IEC 60794-1-2 Method E1, requiring no permanent deformation after the applied load.

Kink: tested in accordance with IEC 60794-1-2 Method E10, at $\leq 20 \times OD$, no reduction of diameter greater than 15%.

Impact: tested in accordance with IEC 60794-1-2 Method E4, 1 joule, no residual deformation greater than 15%.

Crush: tested in accordance with IEC 60794-1-2 Method E3, no permanent deformation after the applied load*.

Bend: tested in accordance with IEC 60794-1-2 Method E11, at $\leq 12 \times OD$, 5 turns, no residual deformation greater than 15%.

Friction (tube only): A 5kg weight pulled at 1m/min across 100mm. Over 2 pulls the coefficient of friction must be less than 0.1.

Pressure Performance (tube only): tested in accordance with IEC 86A/1205/CD Annex C, proof and burst tests across 0 to +40°C.

*load 400N (LSOH), 700N (poly tubes), 1000N (DI) and 2000N (DB)

Internal Cable (LSOH)

These designs were developed for suitability for use in buildings where reduced halogen content, low smoke and acid gas emission and improved resistance to burning make them attractive where people and high performance equipment may be at risk.

The Internal LSOH cable must also pass a range of additional tests, for:

Flammability: IEC 60332 parts 1 & 3

Low Acid Gas Emission: IEC 60754-1

Smoke: IEC 61034-2

Flammability Temperature: BS EN ISO 4589-3 (not less than 270°C)



Data Sheet ST003

Product details

Assembly Type	Nominal OD (mm)	Minimum Bend Radius (mm)	Maximum Tensile (N)	Nominal Weight (g/m)
1 Way	5.0	60	75	15
2 Way	7.2 x 12.2	90 x 150	375	75
4 Way	12.2 x 14.3	150 x 175	610	122
7 Way	15.7 x 17.0	190 x 205	925	185
12 Way	20.0 x 22.3	240 x 270	1450	290
19 Way	24.3 x 27.0	295 x 325	2100	420
24 Way	31.8 x 32.0	380 x 385	2900	580