

Sheathing Material Observations – Coaxial Cable for Digital Use

Low Smoke Zero Halogen (LS0H), Low Smoke Fume (LSF), UV PVC

In an ever-changing world where price seems to be king safety must be pushed to the forefront.

Concerning External Sheathing Materials the choices should be made clear. Are we sure what we want? Are we sure what we have?

With the Benchmarking of Coaxial Digital Cables by the CAI a lot of questions have been addressed.

However the Benchmarking does not address the Low Smoke Zero Halogen (LS0H) and Low Smoke Fume (LSF) issues.

What Does LSF Give You?

LSF Cable complies to BS7622 or commonly called a 3 mtr cable test:

In a 3m cube metal cabinet samples of cables are burned by 100 cm² of alcohol on a light source and a photocell placed horizontally in the mid vertical plane of the cube, at height of 2.15m. Absorbance of light transmittance are verified as follows:-

Test	Value Required
BS6724 (Absorbance – Ao)	0.7 ÷ 1.5 depending on cable diameter
IEC 61034-2 (Light Transmittance – LT)	50 ÷ 70% depending on cable diameter

What Does LS0H Give You?

When a fire strikes it was noticed there were two main problems associated with Raw Materials 1) Black Smoke was a problem, people could not see the exits, 2) Corrosive Gas was forming which was the killer.

The material LS0H addressed both of these issues; LS0H cable complies with BS6424-1&2 and IEC 60743-1&2

This test allows estimation of corrosiveness against metals released when cables burn. Samples of non-metallic materials are burned in a tubular oven and the gases evolved during combustion are collected into wash bottles. The analysis of the solution contained in the bottles allows the quantity of corrosive gases to be determined.

Corrosivity can be checked either through the amount of HCl evolved per gram of sample, or through pH and conductivity of test solution.

Test	Value Required
CEI 20-37/2-1 EN 50267-2-1 BS 6425 IEC 60743-1	≤0.5% acid gas
CEI 20-37/2-2 EN 50267-2-2 BS 6425-2 IEC 60754-2	pH ≥4.3 Conductivity ≤100 μS.cm ⁻²

CBL only supplies LS0H compound or UV PVC compound on the outer jacket.

External use – UV PVC Internal use – LS0H

The Halogens Emitted By UV PVC are on average less than 17%
The Halogens Emitted by LSF are on average less than 15%
The Halogens Emitted by LS0H are on average less than 0.5%
The Halogens Emitted by CBL's LS0H are on average 0%

We pride ourselves on quality safety and excellent pricing and service.

Be sure on the Standard you are getting! The letters are similar but their performances are not.

