BRITISH TELECOMMUNICATIONS plc

SPECIFICATION CP 7

SUB-DUCT & CONNECTORS

SCOPE The purpose of this specification is to provide Communication Providers (CPs) with information on the minimum requirements for sub-duct and associated connectors for installation in the Openreach Underground Network Infrastructure.

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1. GENERAL

1.1 Issue 1 suffixes the first issue of a specification. When a specification is re-issued the issue number is advanced sequentially.

1.2 Except when a specification is completely re-written, a star in the margin adjacent to the main clause number indicates an amendment. A vertical line in the margin indicates the particular portions(s) amended.

1.3 When a specific issue of a supplementary specification is not quoted, then the latest issue of that specification shall be followed.

1.4 If any further information in connection with the specification is required, application should be made to the address given at the end of this specification.

2. APPLICATION & USE

Sub-duct is generally installed in underground infrastructures to provide:

- A continuous low friction path to enable the installation of optical fibre cables by the use of compressed air or by direct installation using a cabling rope.
- Protection to the installed cable from external mechanical effects such as crushing, bending, impact damage, etc.

Connectors are used for axially joining lengths of sub-duct together.

Connectors shall only be installed in jointing chambers.

3. INSTALLATION PERFORMANCE

The sub-duct and associated connectors shall be suitable for installation in accordance with BT specification CP10.

A maximum working pressure of 12 bar shall not be exceeded for sub-duct and associated connectors.

4. MATERIALS

The sub-duct and connectors shall be manufactured from suitable polymer materials.

The materials used shall be suitable for use in an external and underground environment.

Sub-duct and connectors shall be suitable for an installed service life of 25 years.

The outer surface of the sub-duct shall be smooth and circular in cross-section.

These materials used in the manufacture of the sub-duct and connectors shall be in accordance with the latest COSHH regulations.

5. OUTSIDE DIAMETER

The nominal outside diameter of the sub-duct shall be 25mm.

*6. IDENTIFICATION

The sub-duct shall be coloured for identification purposes. The sub-duct colour is at the choice of CPs. However, CPs shall not use the colours black or yellow for sub-duct colouring.

When installed, the sub-duct shall be fitted with a suitable label detailing the CP name. The label shall be present at least once in each jointing chamber that the sub-duct is present in,

When selecting a colour for the sub duct, consideration should be given to the NJUG Guidelines on the Positioning and Colour Coding of Underground Utilities' Apparatus. These can be found at:-

http://www.njug.org.uk/publication/114/

7. PNEUMATIC PERFORMANCE

The sub-duct and connectors shall be tested in accordance with BS EN ISO 1167-1.

The following requirements shall apply:

Test samples shall consist of lengths of sub-duct axially joined together using connectors.

Adequate testing shall be performed to ensure that the sub-duct / connector combination meets the required pneumatic performance.

- Test Temperatures, 0°C and +40°C.
- Pressure medium, water (+anti freeze).
- Proof test pressure, 15 bar.
- Duration of proof test pressure, 24 hours.
- Minimum burst test pressure, 30 bar.

Acceptance criteria

The sub-duct and connectors shall be capable of sustaining the stated requirements without bursting, loss of pressure and separation.

8. REFERENCES

British Standard	BS EN ISO 1167-1
COSHH Regulations	Latest Issue
NJUG Publication	Volume 1
BT specification	CP10

9. CHANGE RECORD

ISSUE	Date	Change
Issue 1	December 2010	New document
Issue 2	December 2010	Amendment to outside diameter clause.
Issue 3	January 2011	Amendment to identification clause.
Issue 4	May 2014	Change to specification authority address.
Issue 5	May 2018	Additional requirement in clause 6 for provision of a sub-duct label. New address for specification authority

*10. SPECIFICATION AUTHORITY

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END OF SPECIFICATION