

# Standards

Metstrut Cable Trunking Systems generally conform to BS EN 50085-1:2005 Cable trunking systems and cable ducting systems for electrical installations-Part 1: General requirements, and BS EN 50085-2-1:2006 Cable trunking systems and cable ducting systems for electrical installations-Part 2-1: Cable trunking systems and cable ducting systems intended for mounting on walls and ceilings.

The above supercedes BS 4678, now withdrawn.

This European Standard specifies requirements and tests for cable trunking systems and cable ducting systems intended for the accommodation, and where necessary, for the electrically protective separation, of insulated conductors, cables and possibly other electrical equipment in electrical and/or communication systems installations. The maximum voltage of these installations is 1000V a.c. and 1500V d.c.

This standard does not apply to conduit systems, cable tray systems, cable ladder systems, power track systems or equipment covered by other standards.

## 3 Definitions

For the purpose of this European Standard the following definitions apply.

### 3.1 Cable trunking system

Assembly comprising a trunking length and possibly other system components to provide an enclosure for the accommodation and laying in of insulated conductors and cables and possibly the accommodation of other electrical equipment.

### 3.3 System component

Part of the system which includes:

- a) trunking length
- b) trunking fitting
- c) fixing device
- d) apparatus mounting device
- e) system accessory

NB a system does not necessarily include all system components a) to e). Different combinations of system components may be used.

### 3.4 Trunking length

Main component of a cable trunking system comprising a base with one or more access covers which may be opened or removed.

### 3.6 Fitting

System component to connect, change direction or terminate trunking lengths

### 3.7 Fixing device

System component to secure other system components to the wall, ceiling, floor or other structure.

### 3.8 Apparatus mounting device

System component to accommodate electrical apparatus, (switches, socket outlets, circuit breakers, telephone outlets, etc.) which can be an integral part of electrical apparatus.

### 3.9 System accessory

System component which provides a supplementary function.

### 3.10 Metallic system component

System component which consists of metal only.

### 3.12 Composite system component

System component comprising both metallic and non-metallic materials.

## 4 General requirements

Metstrut Cable trunking systems have been designed and constructed so that, where required, they provide reliable mechanical protection to the insulated conductors, cables and possibly other electrical equipment. Where required the system provides adequate electrical protection.

The system components meet the classifications as detailed/**highlighted** in Section 6.

## 6 Classifications

### 6.2 According to resistance to impact for installation and application

6.2.3 Metstrut cable trunking systems offer impact resistance of 2 J

### 6.3 According to temperatures as given in Tables 1,2 & 3

**Table 1 – Minimum temperature**

Minimum transport and storage temperature °C

|            |
|------------|
| -45        |
| <b>-25</b> |
| -15        |
| -5         |

**Table 2 - Minimum temperature**

Minimum installation and application temperature °C

|            |
|------------|
| <b>-25</b> |
| -15        |
| -55        |
| +5         |
| +15        |

**Table 3 - Maximum temperature**

Maximum application temperature °C

|            |
|------------|
| <b>+60</b> |
| +90        |
| +105       |
| +120       |

**6.4 According to resistance to flame propagation**

6.4.2 Metstrut cable trunking systems are non flame propagating.

**6.5 According to electrical continuity characteristic**

6.5.1 Metstrut cable trunking systems have electrical continuity characteristic.

**6.6 According to electrical insulating characteristic**

6.6.1 Metstrut cable trunking is without electrical insulating characteristic.

**6.7 According to degrees of protection provided by enclosure according to EN60529:1991**

6.7.1 Metstrut cable trunking is IP30.

**6.9 According to system access cover retention**

6.9.2 Metstrut cable trunking access cover can only be opened with a tool.

**6.10 According to electrically protective separation**

6.10.1 Metstrut cable trunking system without internal protective partition.

6.101 According to intended installation positions.

6.101.3.1 Surface mounted on wall.

6.101.3.2 Surface mounted on ceiling.

6.103 According to type.

6.103.2 Type 2 cable trunking system – distribution.

**7 Marking and documentation**

7.1 Each system component is marked by label. Labels used fully comply with the rubbing test. Boxed items are labelled on the packaging.

**8 Dimensions**

There are no dimensions requirements.

**9 Construction****9.1 Sharp edges**

Surfaces of system components which are likely to come into contact with cables during installation are inspected to ensure they shall not cause damage to the cables when installed correctly.

**9.4 Mechanical connections**

Screwed connections have been designed to withstand the mechanical stresses occurring during installation and normal use and will not cause damage to cables when correctly inserted. Screwed connections are generally isometric threads fully compliant with tests in accordance with 9.4.1 of the standard. Screws intended to be tightened by means of a screwdriver should be to a torque of 2Nm per Table 4 – Torque values for the test of screwed connections.

Mechanical connections intended for re-use other than screwed connections have been tested in accordance with 9.4.2, i.e. fitted and removed 10 times. After the test, there was no damage to impair the further use of the mechanical connection i.e. turnbuckle connectors.

**9.6 Equipotential bonding**

9.6.1 Metstrut cable trunking systems should not be used for equipotential bonding.

**9.7 Access to live parts**

9.7.1 Metstrut cable trunking systems are designed that when they are installed correctly as in normal use, live parts are not accessible.

9.7.4 knockouts meet the requirements of EN 61032:1998

**9.101 Assembling**

Metstrut system components fit correctly generally using integral couplers with plunged and tapped holes.

**10 Mechanical properties**

Metstrut cable trunking systems have been tested to verify the classifications stated particularly relating to mechanical strength, impact resistance, system access cover retention etc.

**15 Electromagnetic compatibility**

Metstrut cable trunking systems are in normal use, passive in respect of electromagnetic influences (emission and immunity).

Note: When products covered by this standard are installed as part of a wiring installation, the installation may emit or may be influenced by electromagnetic signals. The degree of influence will depend on the nature of the installation within its operating environment and the apparatus connected by the wiring.