

CONDUIT SYSTEMS

Round and oval PVC-U conduit systems and fittings and MT Supertube, a high impact alternative to steel conduit suitable for installation where LSOH and EMC are a requirement.

ROUND CONDUIT AND FITTINGS

Round conduit made from super high impact self-extinguishing PVC-U.

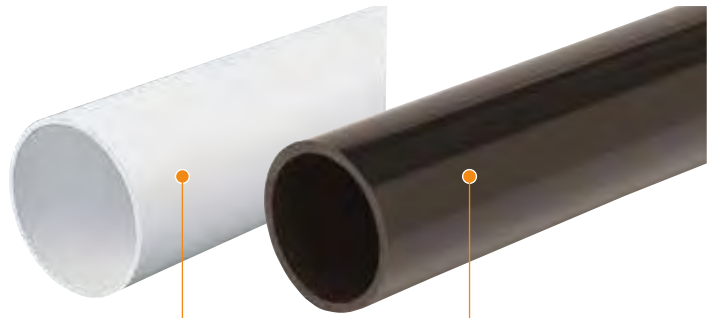
Product information

Conduit

- Light or heavy gauge options
- Meet requirements for BS 4607, BS EN 61386-1:2008, BS EN 61386-21:2004+A11:2010 and BS EN 61386-25:2011 where applicable

Boxes

- Provision for MET1 brass earth terminal
- All boxes have threaded brass inserts



Light and heavy gauge options

REASSURINGLY RECYCLED OUR WHITE CONDUIT LENGTHS ARE MANUFACTURED USING OVER 95% RECYCLED MATERIAL.

CONDUIT SYSTEMS

Standard Colours		
WH	BK	RD*
WH: White BK: Black RD: Red		

Colour code suffix: to indicate the finish you require, add the required colour code to the end of the product code.

*Selected items only are available in red as indicated in the product details below.

Light & heavy gauge



Light gauge

code	O.D	pack
CR2WH	20mm	30 x 3m
CR3WH	25mm	30 x 3m
CR4WH	32mm	10 x 3m
CR9WH	38mm	10 x 3m
CR10WH	50mm	10 x 3m

Heavy gauge

code	O.D	pack
CR6WH*	20mm	30 x 3m
CR7WH	25mm	30 x 3m
CR8WH	32mm	10 x 3m
CR11WH	38mm	10 x 3m
CR12WH	50mm	10 x 3m

*Red is available as standard colour

Round conduit fittings



Expansion couplers

code	size	pack
MEC2WH	20mm	25
MEC3WH	25mm	10

Should be fitted over a clear gap between two round rigid conduits

Straight couplers

code	size	pack
MC2WH*	20mm	100
MC3WH	25mm	50
MC4WH	32mm	25
MC5WH	38mm	10
MC6WH	50mm	10

*Red is available as standard colour

Reducers

code	size	pack
MR2WH	25 x 20mm	50

Plastic plugs – red only (for heavy gauge conduit)

code	size	pack
MPP2	20mm	100
MPP3	25mm	100
MPP4	32mm	50



Inspection elbows

code	size	pack
MI2WH	20mm	20

For 25mm size use Inspection Bend



Inspection bends

code	size	pack
MIB2WH	20mm	20
MIB3WH	25mm	20



Inspection tees

code	size	pack
MIT2WH	20mm	20
MIT3WH	25mm	20



Plain bends

code	size	pack
MNB2WH	20mm	25
MNB3WH	25mm	10
MNB4WH	32mm	20
MNB5WH	38mm	5
MNB6WH	50mm	2



Adaptors (Female thread)

code	size	pack
MAB2WH*	20mm	100
MAB3WH	25mm	50
MAB4WH	32mm	25
MAB5WH	38mm	15
MAB6WH	50mm	10

*Red is available as standard colour



Adaptors (Male thread)

code	size	pack
MA7WH*	20mm	100
MA8WH	25mm	50

*Red is available as standard colour



Adaptors (Clip-in spout)

code	size	pack
MCA2WH*	20mm	100

*Not available in black



Male bushes

code	size	pack
MMB2WH	20mm	100
MMB3WH	25mm	100
MMB4WH	32mm	25
MMB5WH	38mm	10
MMB6WH	50mm	10



Threaded lockrings

code	size	pack
MLR2WH	20mm	100
MLR3WH	25mm	50



Round 'U' clips

code	size	pack
MMC2WH	20mm	100
MMC3WH	25mm	50
MMC4WH	32mm	25



Strap saddles

code	size	pack
MSS2WH*	20mm	100
MSS3WH*	25mm	100
MSS4WH	32mm	50
MSS5WH	38mm	25

*Not available in black



Spacer bar saddles

code	size	pack
MSB2WH*	20mm	100
MSB3WH	25mm	100
MSB4WH	32mm	50
MSB5WH	38mm	10
MSB6WH	50mm	10

*Red is available as standard colour



Spacer bar snap saddle

code	size	pack
MSBS2WH	20mm	100



Threaded cable gland

code	size	cable size	pack
MCG2WH*	20mm	ø7-10.5	100
MCG3WH*	25mm	ø8-13	25

*Not available in black



Locknuts (for use with cable glands)

code	size	pack
MLN2WH	20mm	100
MLN3WH	25mm	25
MLN4WH	32mm	10



Plain body cable gland

code	conduit	cable size	pack
MCGP2WH*	20mm	ø7-10.5	25

*Red is available as standard colour

*Not available in black



Conduit to mini adaptor

code	size	pack
TAC1/2WH	MMT1/20mm round 20	



Loop-in boxes

code	size	pack
2MRB12WH	4 x ø20mm KO	20
3MRB12WH*	2 x ø25mm KO	20

*Not available in black



Terminal

code	size	pack
2MRB2WH*	20mm	20
3MRB2WH	25mm	20

*Red is available as standard colour



Through

code	size	pack
2MRB3WH*	20mm	20
3MRB3WH	25mm	20

*Red is available as standard colour

Circular boxes

PVC-U plain bored circular boxes are suitable for suspending loads of up to 3kg centrally at 60°C maximum. Fixing centres are at 50.8mm and fitted with M4 brass inserts.



Angle

code	size	pack
2MRB4WH*	20mm	20
3MRB4WH	25mm	20

*Red is available as standard colour



Tee

code	size	pack
2MRB5WH	20mm	20
3MRB5WH	25mm	20



4-way

code	size	pack
2MRB6WH	20mm	20
3MRB6WH	25mm	10



Branch 2-way or U

code	size	pack
2MRB13WH*	20mm	20
3MRB13WH	25mm	20

*Red is available as standard colour
*Not available in black



Branch 3-way or Y

code	size	pack
2MRB14WH	20mm	20
3MRB14WH	25mm	20



Twin through way or H

code	size	pack
2MRB15WH*	20mm	20
3MRB15WH*	25mm	10

*Not available in black



Back outlet

code	size	pack
2MRB1WH*	20mm	20
3MRB1WH*	25mm	10

*Not available in black



Terminal/back outlet

code	size	pack
2MRB7WH*	20mm	20
3MRB7WH	25mm	10

*Not available in black



Circular rubber gasket

code	size	pack
MRG1	66mm diam	100

Black only



Circular lids

code	size	pack
MCL1WH*	flush fitting (65mm diam)	100
MCL2WH	overlapping (85mm diam)	100

*Red is available as standard colour



Circular extension rings

code	size	pack
MER1WH	12mm	20
MER2WH*	20mm	20
MER3WH*	25mm	20
MER4WH*	32mm	20
MER5WH*	38mm	10

Circular extension rings have two lugs fitted with M4 brass inserts and two plain bored lugs

*Not available in black

Square adaptable boxes



Terminal

code	size	pack
4SJB1WH	32mm	1

Not available in black



Through

code	size	pack
4SJB2WH	32mm	1

Not available in black



Angle

code	size	pack
4SJB3WH	32mm	1

Not available in black



Tee

code	size	pack
4SJB4WH	32mm	1

Not available in black



Four-way

code	size	pack
4SJB5WH	32mm	1

Not available in black

Square boxes

PVC-U square adaptable boxes have 32mm or 38mm entries. Boxes have a 75 x 75 x 60mm internal size.



***Conduit solvent cement**

code	pack
MSC	1x250ml

*Child resistant lid

HEALTH & SAFETY DATA SHEETS ARE AVAILABLE FROM www.marshall-tufflex.com AND IN THE INTEREST OF SAFETY, THE SOLVENT CEMENTS ARE REGISTERED WITH THE NATIONAL POISON INFORMATION SERVICE

Surface mounted



1 gang - square corners

code	depth	pack
*MSSB10KWH	32mm	20
MSSB17KWH	44mm	10

*Red is available as standard colour
Not available in black



2 gang - square corners

code	depth	pack
MSSB11KWH	32mm	10
MSSB23KWH	44mm	5

Not available in black



1 gang - radius corners

code	depth	pack
MSSB19KWH	32mm	20
MSSB40KWH	44mm	10

Not available in black



2 gang - radius corners

code	depth	pack
MSSB21KWH	32mm	10
MSSB41KWH	44mm	5

Not available in black

All standard surface boxes have 20mm KOs

Flush mounted



1 gang - adjustable lug

code	depth	pack
MSSB1WH	35mm	12
MSSB47WH	47mm	10

Entries: 2 x ø20mm on each of 4 sides (MSSB1 and MSSB47)
Not available in black



2 gang - adjustable lug

code	depth	pack
MSSB3WH	35mm	6

Entries: 4 x ø20mm on horizontal sides, 2 x ø20mm on vertical sides
Not available in black

Surface and flush mounted boxes

Surface mount boxes
1 gang = 87 x 87mm with 60.3 fixing centres
2 gang = 147 x 87mm with 120.6 fixing centres

Flush mount boxes
1 gang = 74 x 74mm with 60.3 fixing centres
2 gang = 134 x 74mm with 120.6 fixing centres

Cover plates



1 gang - flat

code	depth	pack
MSCP2WH	2mm	20

Size: 86 x 86mm O/A
Not available in black



2 gang - flat

code	depth	pack
MSCP3WH	2mm	10

Size: 86 x 146mm O/A
Not available in black

Accessories



Bending spring heavy gauge (green end)

code	conduit size	pack
MBSH2	20mm	1
MBSH3	25mm	1
MBSH4	32mm	1
MBSH5	38mm	1
MBSH6	50mm	1



Bending spring light gauge (white end)

code	conduit size	pack
MBSL2	20mm	1
MBSL3	25mm	1
MBSL4	32mm	1



Nylon draw tape

code	pack
MDT10	1 x 10m
MDT20	1 x 20m
MDT30	1 x 30m



Channel (white only)

code	dimensions	pack
ECC21WH	12 x 8mm	50 x 2m
ECC22WH	25 x 8mm	50 x 2m
ECC23WH	38 x 9mm	50 x 2m



PVC pipe cutter

code	pack
MTPC42	1



Brass earthing terminal

code	rating	pack
MET1	15Amp	100

Corrugated conduit



Corrugated conduit (polypropylene)

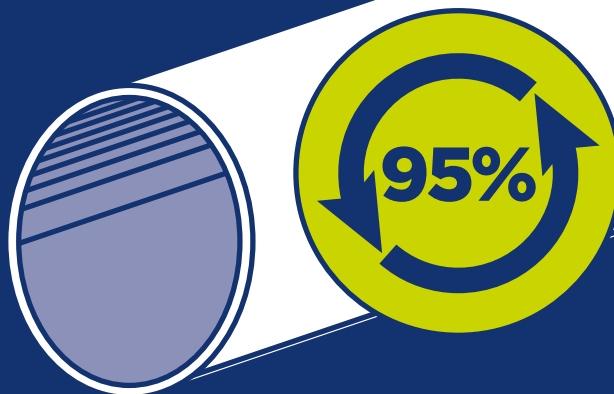
code	O.D	pack
CC2000WH	20mm	1 x 50m
CC2500WH	25mm	1 x 50m



Straight adaptors (nylon)

code	size	pack
CC2010WH	20mm	25
CC2510WH	25mm	25

OUR WHITE CONDUIT LENGTHS ARE MANUFACTURED USING OVER 95% RECYCLED MATERIAL



REASSURINGLY RECYCLED

OVAL CONDUIT AND FITTINGS

PVC-U oval conduit and fittings are typically used to protect cables buried in shallow voids or chased into walls. Oval conduit is made from super high impact PVC-U.



Product information

- Low depth conduit
- PVC-U conduit is a recyclable material
- PVC-U is a non-flame propagating material
- The range exceeds BS and EN standards

Standard Colour
WH
WH: White

Oval conduit and fittings



Oval conduit

code	O.D	dimensions	pack
EC016WH	13mm	13 x 8mm	50 x 3m
EC017WH	16mm	16 x 10mm	50 x 3m
EC018WH	23mm	23 x 11mm	50 x 3m
EC019WH	29mm	29 x 11mm	20 x 3m
EC020WH	32mm	32 x 11mm	20 x 3m

Oval clips

code	size	pack
MOC1WH	13mm	100
MOC2WH	16mm	100
MOC3WH	23mm	100
MOC4WH	29mm	100
MOC5WH	32mm	100



Oval connector

code	size	pack
MOCC20WH	23mm	25

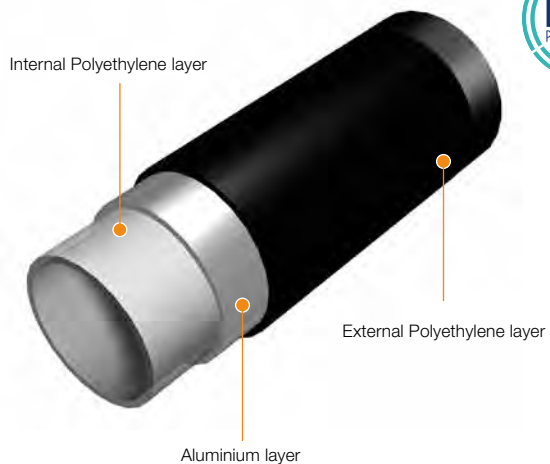
Oval to round adaptors

code	size	pack
MOR2WH	23mm oval/ ø20mm	50

CONDUIT SYSTEMS

MT SUPERTUBE

MT Supertube is a unique, LSOH, 3-layer heavy gauge conduit comprising polyethylene internal and external layers over a continuous aluminium tube that provides additional mechanical strength. MT Supertube has excellent EMI screening performance and is a practical and cost-saving alternative to standard galvanised conduits.



Product information

- Ø20mm and Ø25mm
- LSOH conduit
- Excellent screening performance
- Suitable for rail, marine and tunnel applications
- ZERO WASTE: available in continuous lengths of up to 100 metres, meaning fewer fittings per installation
- Longer lengths also prevent ingress of water
- Extra security from data interference
- Suitable for in-screed applications
- Withstands temperatures from -45°C to +120°C
- Nail penetration: MT Supertube complies with requirements of the current version of BS 7671, BS EN 61386-1:2008
- BS 8436 is specification for 300/500V screened electric cable

Note: Allowance must be made for earthing the trunking system to comply with the current version of the BS 7671 Wiring Regulations.

Standard Colours

WH

BK

WH: White BK: Black

Colour code suffix: to indicate the finish you require, add the required colour code to the end of the product code.

MT SUPERTUBE is a time saving alternative to galvanised steel conduit.

See page 11 for the MT Supertube cost and labour saving comparison.

FIRE SECURITY

MT Supertube FR Plus

MT Supertube is available to meet the requirements of LUL (London Underground Ltd) engineering standard 2-01001-002:issue A1, material classification EQ/1 (equipment/limited and dispersed).

*Please note MT Supertube FR Plus is not a standard stock item and therefore lead times and minimum order quantities will apply.

Please contact our Technical Team for a quotation on +44 (0)1424 856688.

Coils and lengths



MT Supertube conduit

code	size	pack
22003WH	20mm	30 x 3m
22503WH	25mm	30 x 3m

MT Supertube coils

code	size	pack
22010BK	20mm	1 x 100m
22505BK	25mm	1 x 50m

Tools



Tube cutter

code	size	pack
20001	20-25mm	1

Stripping tool (pre-set)

code	size	pack
20002	20-25mm	1

Compact tube bender

code	size	pack
20003	20-25mm	1

p13

Technical
Information

Fittings (metal)



Female adaptor with brass bush

code	size	pack
22077BK	20mm	10
22577BK	25mm	10



Coupler

code	size	pack
22079BK	20mm	10
22579BK	25mm	10

Boxes (metal)



Terminal box

code	size	pack
22072BK	20mm	10
22572BK	25mm	10



Tee box

code	size	pack
22075BK	20mm	10
22575BK	25mm	10



Through box

code	size	pack
22073BK	20mm	10
22573BK	25mm	10



Angle box

code	size	pack
22074BK	20mm	10
22574BK	25mm	10



Flush lid

code	pack
20007BK	1

MT Supertube EMI protection boxes and fittings

- Provision to accept a 4mm earthing screw
- All boxes supplied with conduit retaining screw
- All boxes are designed to comply with the current version of BS 7671 Wiring Regulations
- Taper push-fit conduit entry
- Fittings are available in black and white

Case Study

Tate Modern's new extension, the £260m Switch House, required a highly creative approach to the installation of electrical services in a concrete core that rises through the centre of the 10-storey building.

Contractors REL Building Services ruled out the use of traditional galvanised conduit as too costly and unworkable, opting instead for MT Supertube and in doing so breaking new ground in the application of the product. The cable management - carrying power, lighting, data, fire alarms, security, access control and CCTV services - was encased within the building's concrete core and delivered the architectural vision for flush-mounted electrical accessories without the use of voids for cable concealment in floors, walls or ceilings.

Steve Jamieson, REL Technical Manager, said: "Only a flexible solution like MT Supertube could have been used to deliver this installation as it allowed the team to bend lengths of conduit to fit into position around the steelwork and maximised the lengths we could use without a termination.

"MT Supertube's smooth inner surface also allows cables to be inserted using a traditional draw wire, enabling cable pulls of up to 50m in length through a tube with no fittings. This minimises the risk of cables snagging during the build or any future electrical refurbishment, which would not have been possible using a traditional galvanised conduit and fittings arrangement."

Steve Jamieson, REL Technical Manager

Fittings (polycarbonate)



Male adaptor

code	size	pack
22042BK	20mm	25
22542BK	25mm	25



Coupler

code	size	pack
22044BK	20mm	100
22544BK	25mm	50



Spacer bar snap saddle

code	size	pack
22051BK	20mm	100



Spacer bar saddle

code	size	pack
22552BK	25mm	100



U-clip

code	size	pack
22053BK	20mm	100
22553BK	25mm	50



Inspection elbow

code	size	pack
22045BK	20mm	20



Inspection bend

code	size	pack
22546BK	25mm	20



Inspection tee

code	size	pack
22047BK	20mm	20
22547BK	25mm	20



Sealant

code	size	pack
20006	50ml	1x50ml

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Boxes (polycarbonate)



Loop-in box

code	size	pack
22011BK	2 x ø20mm KO	20
22511BK	2 x ø25mm KO	20



Terminal box

code	size	pack
22012BK	20mm	20
22512BK	25mm	20



Through box

code	size	pack
22013BK	20mm	20
22513BK	25mm	20



Angle box

code	size	pack
22014BK	20mm	20
22514BK	25mm	20



Tee box

code	size	pack
22015BK	20mm	20
22515BK	25mm	20



4-way box

code	size	pack
22016BK	20mm	20
22516BK	25mm	10



Flush lid

code	pack
20005BK	100

MT Supertube LSOH boxes and fittings

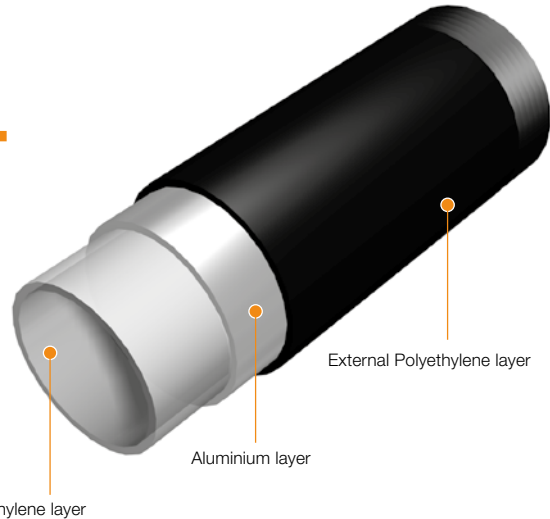
- Suitable for suspending a load of up to 3kg centrally at 60°C maximum
- Fixing centres 50.8mm fitted with M4 brass inserts
- Provision for brass earthing terminals
- Boxes comply with the current version of BS 7671 Wiring Regulations and BS 4607 where applicable
- Fittings are available in black and white



MT Supertube

A TIME SAVING ALTERNATIVE TO GALVANISED STEEL CONDUIT

MT Supertube has a three layer Low Smoke Zero Halogen (LSOH) polyethylene and aluminium construction offering extremely good EMI cable protection and resistance to extremes of temperature and chemicals. It is lightweight yet has the strength of steel meaning it's quick to install and simple to store and carry on site.



- Combines the strength of metal with the flexibility of PVC-U conduit
- Fast installation
- Supplied in coils for easy movement around site without the need for hoists
- Assists in conforming to the EMC directive in regard to EMI shielding
- Fewer in line fittings required and minimal wastage
- Forms easily by hand and to a required radius when utilising the tube bender
- Can be buried in concrete and detected by a CAT detector
- Maintenance free



CONDUIT SYSTEMS

Contractor cost & labour saving example *(based on contractor purchase price)*

Costs calculated on using 100m of 20mm conduit with 8 off 90° bends and estimated manpower costs of £35 per hour.

Galvanised steel

Material cost @ £2.18 per metre + fittings = £229.20
 Labour @ 30mins per metre = 2 metres per hour
 50 hours @ £35 = £1750
 Galvanised steel overall costs = £1979.20

MT Supertube

Material cost @ £2.96 per metre + fittings = £322.34
 Labour @ 10mins per metre = 6 metres per hour
 16.67 hours @ £35 = £583.45
 MT Supertube overall costs = 905.79

The savings on this job amount to £1073.41

54.23% cheaper than galvanised steel

It is also possible to reduce overall project costs by using MT Supertube as it can be bent into position by hand therefore reducing the need for as many fittings.

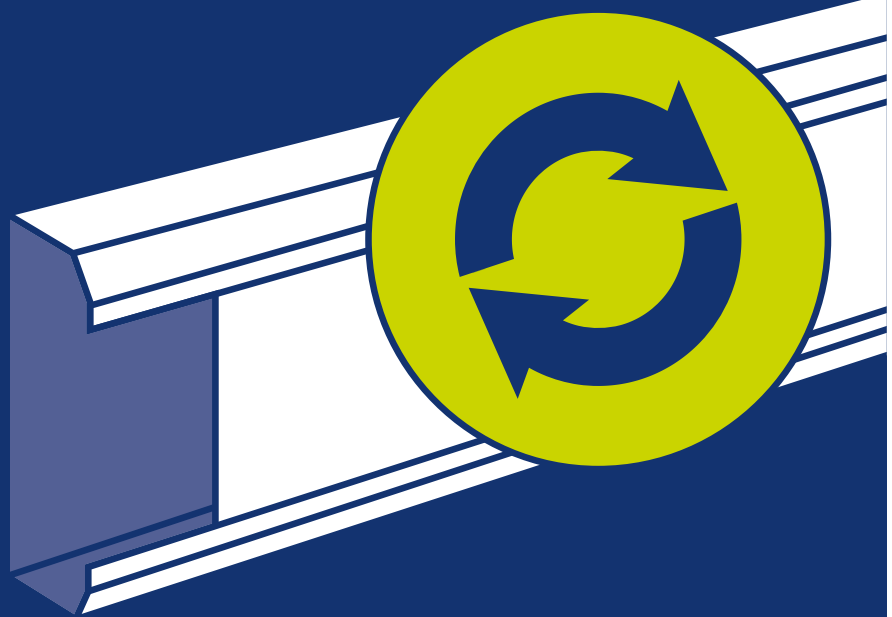
See page 8 for product ordering information.

These figures are based on Marshall-Tufflex trade list price 1st December 2018 (for MT Supertube) and quoted wholesaler prices (for galvanised steel conduit).



ALL OF OUR PVC-U PRODUCTS CAN BE RECYCLED...

Prevent PVC-U being placed into landfill by recycling our products at the end of their useful life.



PVC-U Conduit

Material

PVC-U is flame retardant and self-extinguishing. It is a 100% recyclable material.

Our PVC-U products are manufactured from an average of 80% recycled plastic, with some extruded products produced from 100% recycled material. The index at the back of the catalogue details the recycled content by individual product.

Installation

The properties of PVC-U make it an all insulated system and the use of a separate earth cable is essential.

Joint sealant

- Solvent cement MSC is a slow acting solvent cement especially formulated for watertight conduit fittings.

In accordance with COSHH Regulations, details of our solvents are entered in The National Poison Centre computer records. Health & Safety data sheets are available from our Technical Team or on the technical page of the Marshall-Tufflex website: www.marshall-tufflex.com

MT Supertube

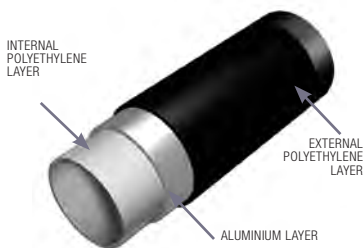
General information

MT Supertube provides LSOH polyethylene-coated aluminium cable protection for installation where halogen free products are a requirement.

Material

Conduit: A seamless aluminium tube sandwiched between two layers of extruded LSOH polyethylene.

Fittings: LSOH polycarbonate or cast metal with paint finish. (black or white).

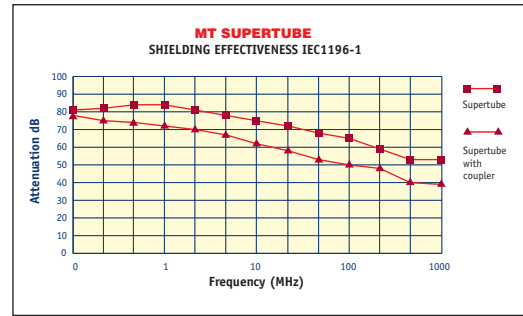


Shielding effectiveness

Shielding effectiveness (attenuation in dB) measures the ratio between the external environment field strength and the field strength after passing through any material. This is recorded in a logarithmic scale.

Shielding effectiveness	
Attenuation in dB	Field strength reduction
6	2
20	10
40	100
60	1000
80	10000

MT Supertube multi layer conduit systems absorbs and reflect emitted radiation from sources of interference, where an attenuation of 80dB would reduce the resultant field within MT Supertube by a factor of 10,000. (See tables.)



The graph above shows that the shielding effectiveness of MT Supertube is highly effective throughout the entire frequency range and will provide protection from interference for data, telecoms and signal cables.

Mechanical		MT Supertube & MT Supertube FR	MT Supertube & MT Supertube FR
Tube reference		22010/22003	22505/22503
Outside diameter	(mm) OD	20	25
Internal diameter	(mm) ID	15.5	20
Wall thickness	(mm) W	2.25	2.5
Minimum bend radius	(8 x dia)	160	200
Weight per metre	(g)	145	184
Lengths	(m)	100/3	50/3
Suspension distance (maximum)	Horizontal (mm)	1000	
	Vertical (mm)	1200	

Mechanical	MT Supertube	MT Supertube FR
Electrical breakdown resistance	20,000 V	20,000 V
Temperature range °C	-45 +120	-45 +289
Thermal expansion coefficient	2.0 x 10-6mm/m/K	2.0 x 10-6mm/m/K
Thermal conductivity	0.45 W (mK)	0.45 W (mK)
Earth bonding/continuity test results	<0.05 Ω	<0.05 Ω
Standards	EN 61386-21	EN 61386-21
	IEC 601196-1	IEC 601196-1

WARNING NAIL PENETRATION: MT Supertube FR Plus complies with the current requirements for BS 7671, BS 8436 and BS EN 61386. Screening to ENIEC 1196-1.

MT Supertube FR Plus performance

Fire Performance				
Oxygen Index	BS EN ISO 4589-2	46.5%		
Flammability Temperature (Temperature Index)	BS EN ISO 4589-3	289°C		
Elemental composition	Lassaigne Sodium	Nitrogen	Negative	
		Fusion	Chloride	Negative
			Bromide	Negative
			Fluoride	Negative
			Sulphur	Negative
Smoke Density	Low Smoke			

Conduit Performance (BS EN 50086.1.2)	
Cold temperature impact test	Heavy gauge performance
Compression	Low compression
Resistance to flame propagation	Pass