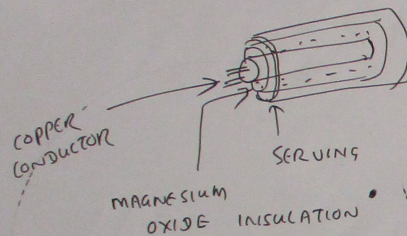


MIMS CABLE QUESTIONS AND ANSWERS

① MINERAL INSULATED METAL SHEATHED CABLE

CONSISTED OF A SEAMLESS COPPER SHEATH, WITH WHAT POWDER AS INSULATION?



② HOW IS MIMS CABLE DEFINED AS PER AS3000 WIRING RULE?

3.9.7.3

THE TYPE OF CABLE CONSISTS OF AN ANNEALED SEAMLESS METAL SHEATH, HOUSING A HIGHLY COMPRESSED MINERAL OXIDE POWDER (MAGNESIUM) OXIDE WHICH SURROUNDS AND INSULATES BETWEEN 1 TO 7 CONDUCTORS STRANDS. THE MOST COMMON MATERIAL USED FOR THE OUTER SHEATH OF MIMS CABLE IS MELLABLE.

③ WHAT IS THE MAXIMUM OPERATING TEMPERATURE OF MIMS CABLE?

3.4.2 / TABLE 3.2

	NORMAL USE	MAXIMUM PERMISSIBLE
mims	100°C	250°C

④ HOW SHOULD MIMS CABLE BE SUPPORTED?

3.3.2.8

MEASURES UNDER TAKEN TO MINIMIZE DAMAGE MAY INCLUDE THE FOLLOWINGS

- (a) PROVISION OF SUPPORTS, CONTINUOUS (OR) AT APPROPRIATE INTERVALS SUITABLE FOR THE MASS OF CABLE
- (b) USE OF SUITABLE FIXINGS FOR THE CABLE SIZE AND TYPE THAT HOLD THE CABLE IN POSITION WITHOUT DAMAGE
- (c) USE OF SUITABLE CONNECTIONS FOR CABLE SIZE AND TYPE THAT REDUCE MECHANICAL STRAIN AT JOINTS AND TERMINATIONS
- (d) ATTENTION TO MINIMUM BENDING RADIUS LIMIT OF CABLE
- (e) PROVISION OF FLEXIBILITY TO ACCOMMODATE ANY MOVEMENT (OR) TENSION.

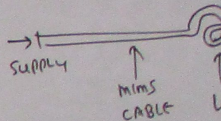
⑤ IS IT PERMISSIBLE TO USE PLASTIC SADDLES TO FIX MIMS CABLE?

NO 3.9.7.3

- (d) SUPPORT → ADEQUATE PROTECTION AGAINST DAMAGE

⑥ WHEN TERMINATING MIMS CABLE

(b) PROTECTION AGAINST DAMAGE PROVIDED FOR BY TERMINATION. THE SIZE OF THE SEVERITY OF THE



⑦ IS IT PERMISSIBLE TO BURY MIMS CABLE IN THE CONCRETE?

NO

3.9.7.3

- (a) PROTECTION SELECTED TO IN WITNESS (i) BURIED

3.11

- (b) PROTECTION

⑧ ARE YOU PERMITTED TO USE PLASTIC SADDLES TO FIX MIMS CABLE?

YES

6.6.3.2.2 TYPE

- (a) UNENCLOSED
- (b) INSULATED ENCLOSURE

WHAT IS THE MAXIMUM OPERATING TEMPERATURE OF MIMS CABLE?

3.4.2 / TABLE 3.2

	NORMAL USE	MAXIMUM PERMISSIBLE
mims	100°C	250°C

HOW SHOULD MIMS CABLE BE SUPPORTED?

2.8

MEASURES UNDERTAKEN TO MINIMIZE DAMAGE MAY BE THE FOLLOWINGS

PROVISION OF SUPPORTS, CONTINUOUS (OR) AT APPROPRIATE INTERVALS SUITABLE FOR THE MASS OF

USE OF SUITABLE FIXINGS FOR THE CABLE SIZE AND TYPE THAT HOLD THE CABLE IN POSITION WITHOUT DAMAGE

USE OF SUITABLE CONNECTIONS FOR CABLE SIZE AND TYPE THAT REDUCE MECHANICAL STRAIN

AT JOINTS AND TERMINATIONS

ATTENTION TO MINIMUM BENDING RADIUS LIMIT OF CABLE

PROVISION OF FLEXIBILITY TO ACCOMMODATE ANY MOVEMENT (OR) TENSION.

IS IT PERMISSIBLE TO USE PLASTIC SADDLES TO FIX MIMS CABLE?

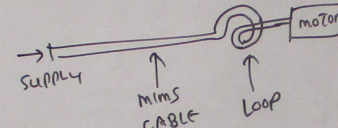
NO 3.9.7.3

SUPPORT → ADEQUATE PROTECTION AGAINST DAMAGE

⑥ WHEN TERMINATING MIMS CABLE TO MOTOR, WHAT SHOULD BE PROVIDED TO STOP VIBRATION?

3.9.7.3

(b) PROTECTION AGAINST VIBRATION MOVEMENT CAUSED BY VIBRATION SHALL BE PROVIDED FOR BY INTRODUCING A LOOP IN CABLE IMMEDIATELY BEFORE THE TERMINATION. THE SIZE OF THE LOOP SHALL BE DETERMINED BY THE CABLE SIZE AND SEVERITY OF THE VIBRATION.



⑦ IS IT PERMISSIBLE TO INSTALL ORANGE SERVED MIMS CABLE BURIED DIRECTLY IN THE CONCRETE. WITHOUT ANY FURTHER PROTECTION?

NO

3.9.7.3

(a) PROTECTION AGAINST CORROSION. THE TYPE OF MIMS CABLE SHALL BE SELECTED TO SUIT THE ENVIRONMENTAL CONDITIONS IT IS INSTALLED IN WHERE THE CABLE IS

(i) BURIED IN CONCRETE (OR) PLASTER CONTAINING CORROSIVE AGENTS.

3.11 (b) PROVIDED WITH PROTECTION AGAINST INDAUGHTENT DAMAGE LIKELY TO BE CAUSED BY MANUAL (OR) MECHANICAL EXCAVATION WORK

⑧ ARE YOU PERMITTED TO USE ORANGED SERVED MIMS CABLE IN A REFRIGERATION ROOM?

YES

6.6.3.2.2 TYPES PERMITTED

(a) UNENCLOSED SHEATHED CABLES INCLUDING SERVED MIMS CABLE

(b) INSULATED UNSHEATHED (OR) SHEATHED CABLE ENCLOSED IN A WIRING ENCLOSURE THAT HAS ADEQUATE DRAINING FACILITIES

MIMS AND FIRE RATED CABLES

CABLE CLIP

FIRE RATED CABLE

CABLE GLANDS

METAL CLAD SWITCH

MIMS CABLE GLANDS

MIMS CABLE

BATTEN HOLDER

1WAY METAL J BOX

WILL LOCATE ELEC. WORK
POWER TO MACHINES & POWER
OUTLETS IN THIS AREA

BATTEN HOLDER



1 WAY METAL

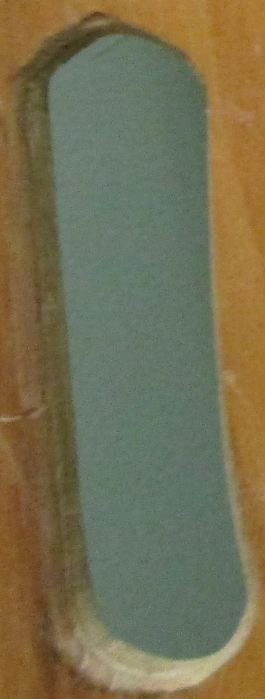
CABLE GLANDS

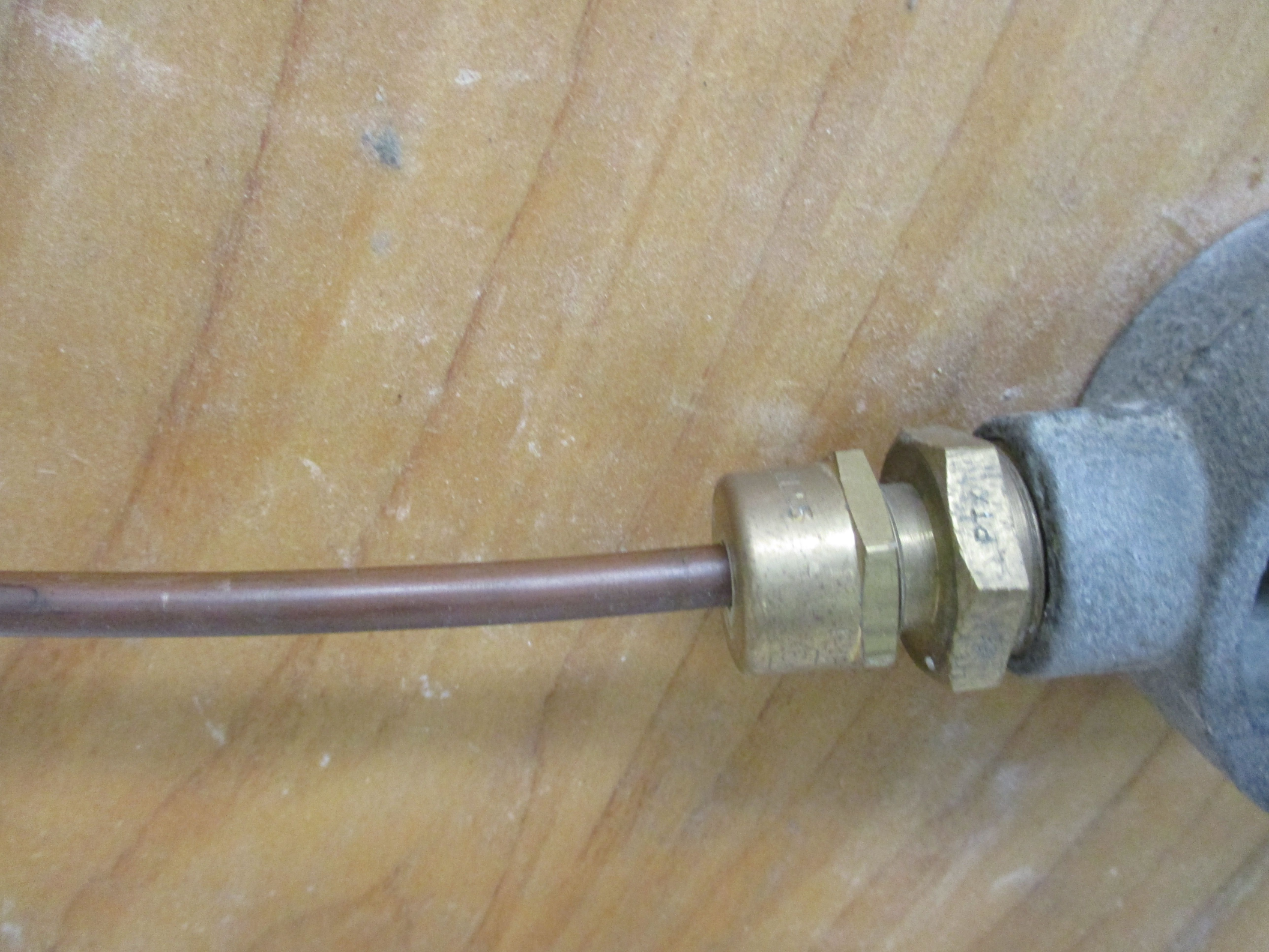


METAL CLAD SWITCH



MIMS CABLE GLANDS





METAL C

9) CAN MIMS CABLE BE USED AS AN EARTH SHEATHED RETURN SYSTEM?

YES

3.16 THE EARTH SHEATH RETURN (ESR) SYSTEM IS ONE WHERE THE COPPER SHEATH OF A MIMS CABLE FORMS A SINGLE CONDUCTOR AND A NEUTRAL (N) CONDUCTOR SIMULTANEOUSLY.

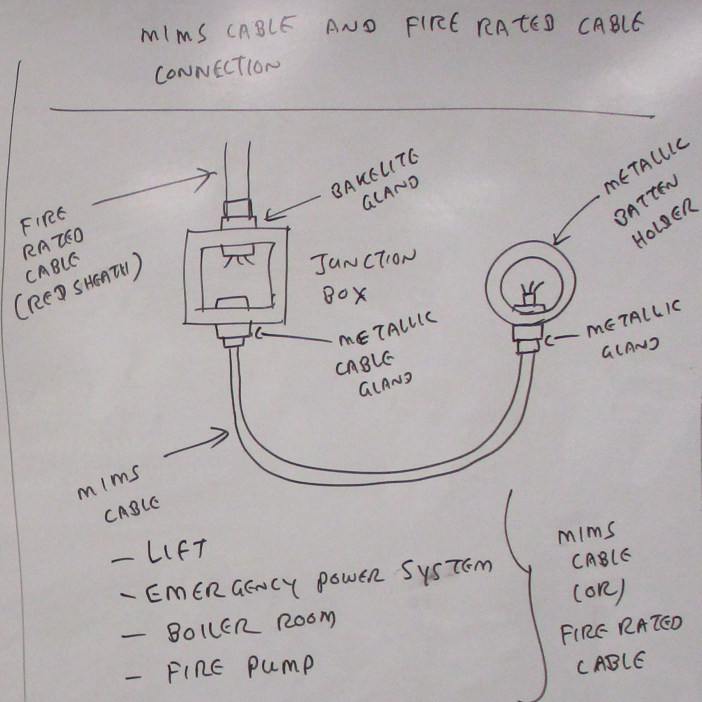
10) WHAT TYPES OF MIMS CABLE IS SUITABLE FOR UNDERGROUND WIRING?

3.9.7.3 MIMS CABLE SHALL COMPLY WITH THE FOLLOWING:

(a) PROTECTION AGAINST CORROSION. THE TYPE OF MIMS CABLE SHALL BE SELECTED TO SUIT THE ENVIRONMENTAL CONDITIONS IT IS INSTALLED IN WHERE THE CABLE IS -

(i) BURIED IN CONCRETE (OR) PLASTER CONTAINING CORROSIVE AGENTS

(ii) INSTALLED UNDERGROUND IN ACCORDANCE WITH CLAUSE 3.11



TERMINATION

TERMINATING MIMS CABLE REQUIRES SPECIALISED TOOL AND EQUIPMENT.

THE MAIN PURPOSE OF TERMINATION ACCESSORIES IS TO PREVENT MOISTURE FROM ENTERING THE CABLE INSULATION AND THE MIXTURE OF POWDERY MAGNESIUM OXIDE INSULATION.

* EXPANSION IN SITUATION

* RE-ANNE

* USE CO

INSULATION

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ADVANTA

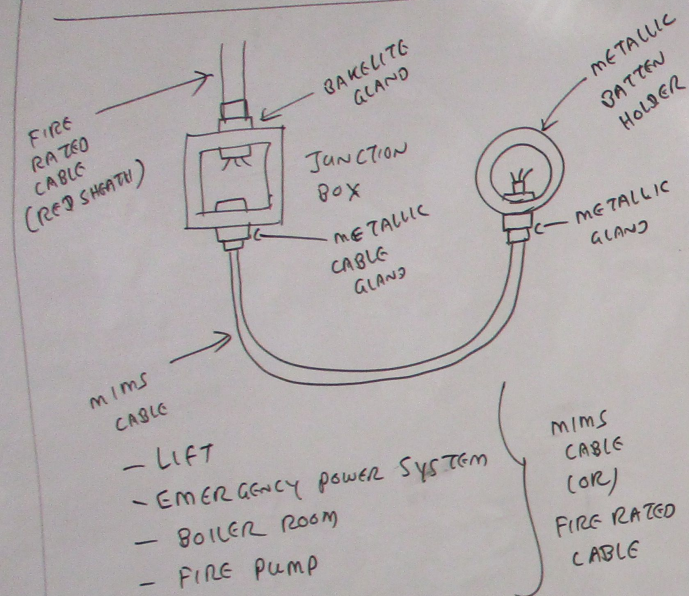
MIMS CABLE

THEY AN

MIMS CABLE -

LARGEST S

MIMS CABLE AND FIRE RATED CABLE CONNECTION



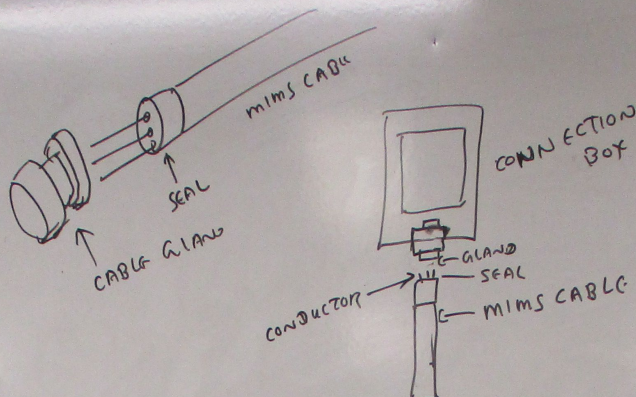
- LIFT
- EMERGENCY POWER SYSTEM
- BOILER ROOM
- FIRE PUMP

MIMS CABLE (OR) FIRE RATED CABLE

TERMINATION

TERMINATING MIMS CABLE REQUIRES SPECIALISED TOOL AND EQUIPMENT.

THE MAIN PURPOSE OF TERMINATION ACCESSORIES IS TO PREVENT MOISTURE FROM ENTERING THE CABLE INSULATION AND THE MIXTURE OF POWDERY MAGNESIUM OXIDE INSULATION.



GENERAL INSTALLATION TIPS

* EXPANSION / VIBRATION BENDS ARE REQUIRED TO AVOID FRACTURE IN SITUATIONS WHERE VIBRATION IS A FACTOR.

* RE-ANNEAL IF COPPER WORK HARDENED (HEAT TO CHERRY RED AND COOL IN AIR)

* USE CORRECT TOOLING (ROLLERS) TO REMOVE BEND BEFORE INSTALLATION

INSULATION RESISTANCE

THE INSULATION RESISTANCE SHOULD BE CHECKED AFTER STRIPPING AND BEFORE TERMINATION. IT SHOULD BE MORE THAN 100 MΩ WHEN TESTED AT 50V DC FOR BOTH WIRES TO SHEATH AND WIRE TO WIRE.

ADVANTAGE OF MIMS CABLE

MIMS CABLE IS MADE OF COPPER AND MAGNESIUM OXIDE.

THEY ARE BOTH INERT AND WON'T PRODUCE ANY SMOKE (OR) GAS

MIMS CABLE → 7 STRANDS, AVAILABLE FROM 1mm² → 400mm²

LARGEST SOLID CONDUCTOR FOR FIXED WIRING IS 2.5mm²

WARNING WARNING V

ELECTRIC CABLE BELOW

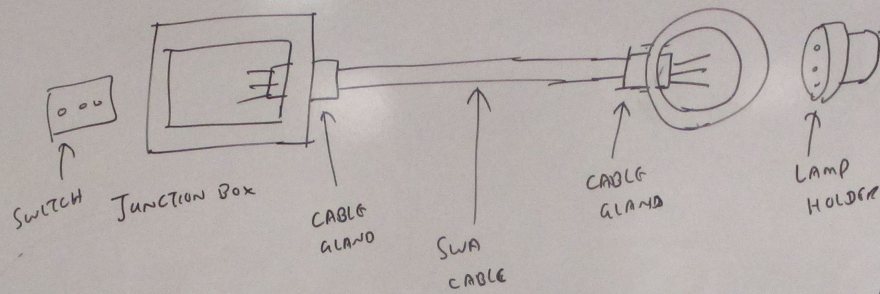




ELECTRIC CABLE BELOW

WARNING WARNING WARNING





TOOL

— ELECTRICIAN TOOL

— HACK SAW

— SPANNER

EQUIPMENT

1. SWA CABLE

2. CABLE GLANDS

3. JUNCTION BOX

4. BATTEN HOLDER

5. METALLIC
LAMP HOLDER BASE

NAME

ID

LIST OF TOOLS