

# SOLDERING



# OBJECTIVES

- Introduction
- Tools used
- Applications
- Soldering safety

# Introduction

- **Soldering** is a process in which two or more metal items are joined together by melting and flowing a filler metal into the joint, the filler metal having a lower melting point than the workpiece.
- Soldering differs from welding in that the workpieces are not melted.

# Solders

- Traditional Solder is an amalgam of Tin and Lead. The percentage of each of these materials defines the use for the solder

<u>%Tin</u>	<u>%Lead</u>	<u>Use</u>
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60	40	Good for all electrical and mechanical work
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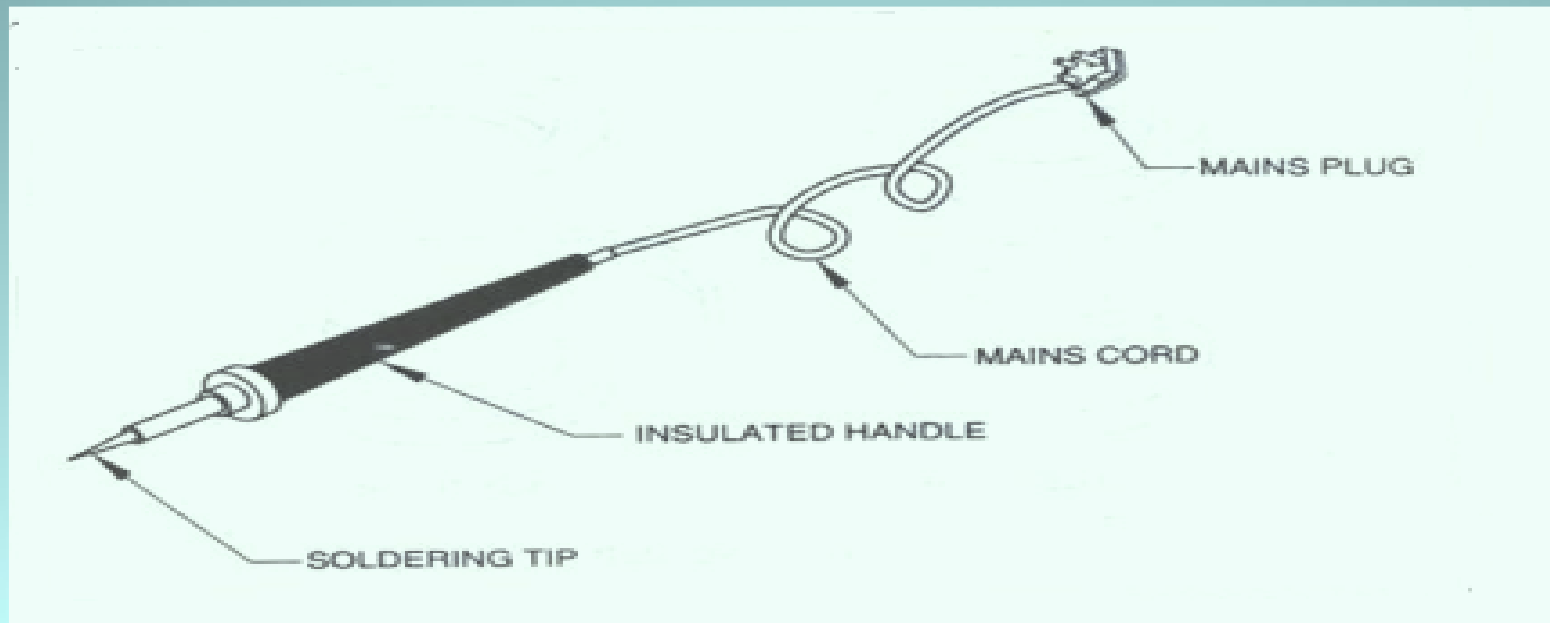
45	55	Very liquid used in plumbing
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50	32	Low melt solder for white-metal casings
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# Tools Used

- Soldering Iron



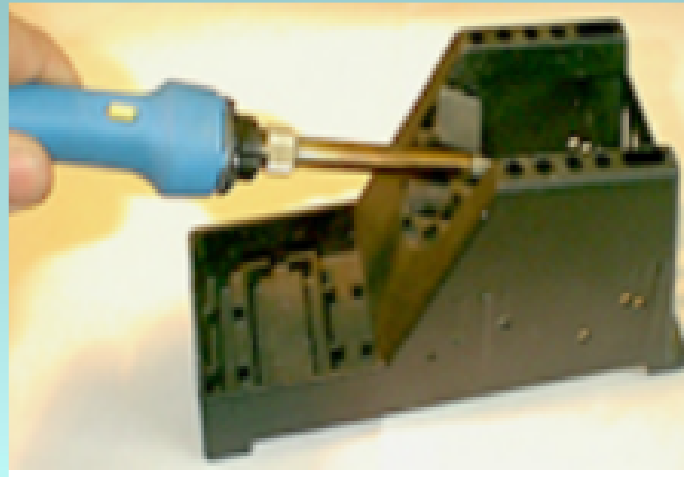
- Used for melting of soldering wire.

- Soldering wire



- It is flux which melts at a temperature lower than metallic components.
- It is substance used for gluing metallic parts

- Soldering stand.



- Used for holding the soldering iron & other accessories.
- Do not leave the Iron on the board

# Applications

- Soldering was historically used to make jewelry items and cooking ware .
- It is used to connect electrical wiring and to connect electronic components to printed circuit boards (PCBs).
- It is used for connections between copper pipes in plumbing systems as well as joints in sheet metal objects such as food cans, roof flashing, rain gutters and automobile radiators.



# Preparation of the report

- Objective
- Tools used
- Principle/ Theory/procedure
- Observations /calculations
- Conclusion
- Precautions



Thank you.....