

JOB ROLE –PLUMBER (GENERAL)

Sector – Plumbing
(Qualification Pack Code: PSC/Q0104)



PSS Central Institute of Vocational Education
Shyamla Hills, Bhopal – 462013, Madhya Pradesh, India

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UNIT 03: PLUMBING MATERIAL AND PIPES

Content

Title	Slide No.
Session Objectives	04
Introduction	05
Sealing Material	06
Plumber's Putty	07
Sealing Adhesives	07
Plumbing Pipes	08-13
Pipe Laying	14-15
Summary	16

Session Objectives

The student will be able to:

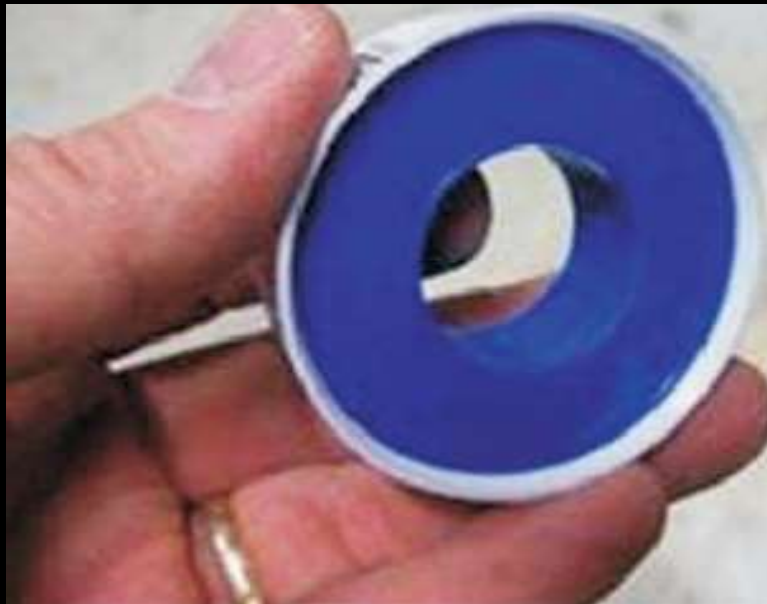
- Define the sealing material.
- Understand the role of plumber's putty.
- Define sealing adhesives.
- Describe the plumbing pipes and their types.
- Understand the role of pipe laying.
- Precaution should be taken during plumbing work.

Introduction

- Plumbing sector in India has witnessed a lot of development in the recent years.
- It has improved not only in terms of availability of better quality material, but also better technologies and processes which make the job role of a plumber even more interesting.

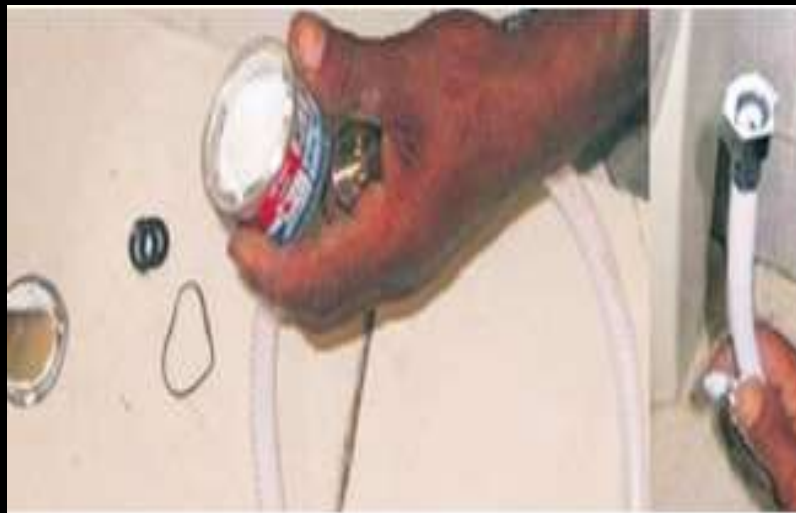
Sealing Materials

- Thread Seal Tap/Faucet is used for sealing pipe threads. It is manufacture from a poly tetra fluoro ethylene (PTFE) film.



Plumber's Putty

- The plumber putty is used as a sealant during plumbing .



Sealing Adhesives

- The sealing adhesives are used while joining plastic parts, fixtures, fittings, etc., and are mostly available in sanitary and hardware shops.



Plumbing Pipes : It is used for different purpose like transporting water for drinking, irrigation etc.

Cast Iron Pipes

- These are mostly used as pressure pipes for transmission of water, gas and sewage and as water drainage pipes.



Ductile Iron Pipes

- These pipes are used for transmission and distribution of potable water.



Steel Pipes

- These are popular due to their strength and light weight, as compared to CI pipes.



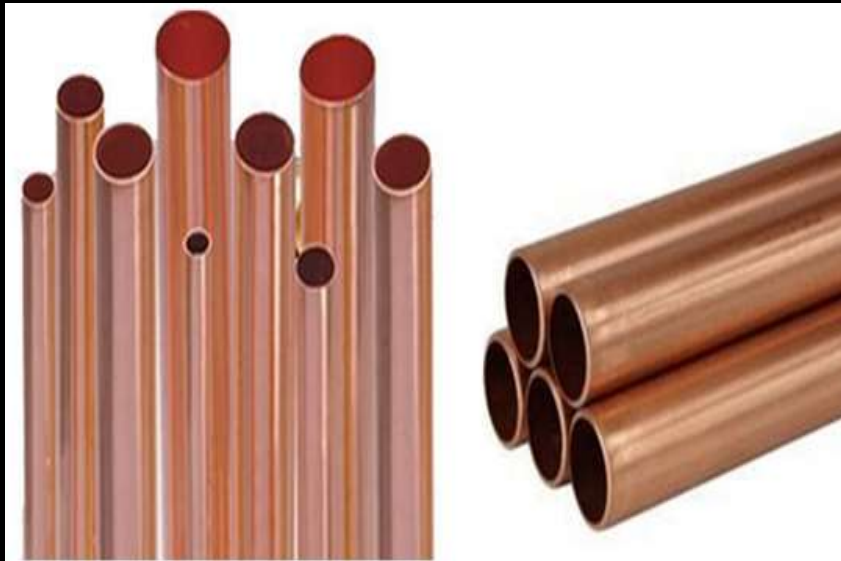
Galvanized Iron Pipes

- These pipes are mostly used inside the building for water supply work.



Copper pipes

- These are mostly used for hot water installation requirements. They have high tensile strength.



Asbestos Cement pipes

- For removal of water (from the roofs), soil and waste, and for purifying the air, asbestos cement pipes are used.



Concrete pipes

- Concrete pipes are made of plain concrete (mixture of broken stone or gravel, sand, cement and water).



Stone ware pipes

- Stone Ware (SW) pipes are mostly used to carry night soil and effluent water.



PVC Pipes : PVC pipes are used for movement of water in plumbing system.

Chlorinated PVC Pipes

- These pipes can be used for higher temperatures up to 120°C.



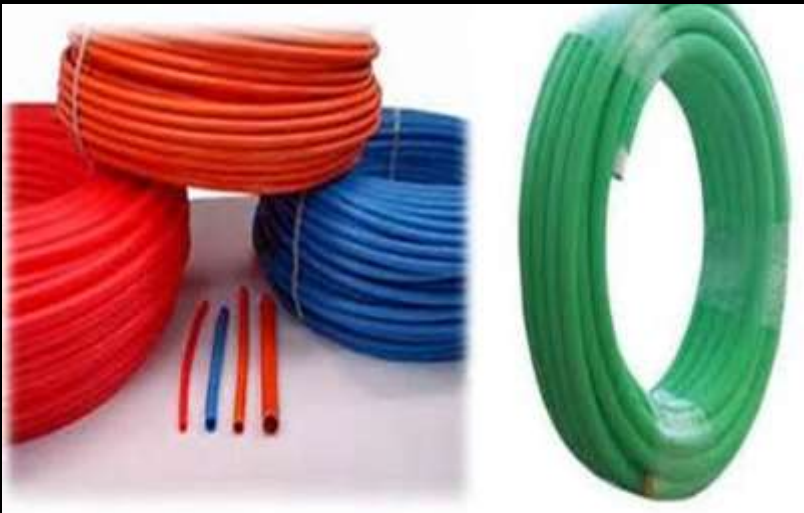
Polypropylene Pipes

- Polypropylene pipes are primarily used for carrying hot water and cold water supply conduits, industrial pipelines, etc.



PEX or XLPE

- A PEX or XLPE pipe is a form of polyethylene having cross links, formed into tubing.



Unplastic Polyvinyl Pipes

- These are primarily used in ventilation pipe work, rainwater applications and waste water discharge system .



Pipe Laying

It is an important process in plumbing. The steps involved in laying of pipes are:

- Before installation of a new pipeline in the building, a layout plan of water distribution of the pipes from the storage water tank is prepared.
- Line of alignment of the pipes are maintained properly.
- Chalk marking or powdered marking is done with the help of a thread or rope, on the proposed area of wall.
- Pipes are fixed horizontally or vertically as required from the source of main water.

- Threading in the pipelines is carefully done so that joints are well settled and leakage is prevented.
- To prevent leakage and for having watertight joints, jute and white paste are properly applied over the threaded portion
- The size of the pipes is selected according to the length of the service pipeline, minimum pressure of water in the distribution main, type of plumbing fixtures.

Summary

- In this unit, we learnt about the different types of pipes and pipe material which are widely used by plumbers today.
- Plumbing sector in India has witnessed a lot of development in the recent years. It has improved not only in terms of availability of better quality material, but also better technologies and processes which make the job role of a plumber even more interesting.

Project Coordinator : Dr. Saurabh Prakash

Assistance
Dr. Satyendra Thakur



Joint Director
PSS Central Institute of Vocational Education
Shyamla Hills, Bhopal – 462013 , Madhya Pradesh, India

E-mail: jdpsscive@gmail.com
Tel. +91 755 2660691, 2704100, 2660391, 2660564
Fax +91 755 2660481
Website: www.psscive.ac.in