



# **SNS COLLEGE OF TECHNOLOGY**



**AN AUTONOMOUS INSTITUTION**

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**COIMBATORE**

## **DEPARTMENT OF CIVIL ENGINEERING**

**23GET102 – BASIC CIVIL AND MECHANICAL ENGINEERING**

**I YEAR / I SEMESTER**

**Unit 1 : Civil Engineering Materials and Surveying**

**Topic : Properties and Uses of Bricks**



# Properties of Bricks

## ❖ Strength

Clay bricks should have a minimum compressive strength of  $9\text{N/mm}^2$  for a building up to two storeys high, and  $13\text{N/mm}^2$  for anything higher.

## ❖ Colour

The most common brick colours are red. However, modern manufacturing methods have allowed for bricks of almost any colour to be produced. Good quality red bricks have a uniform colour throughout its body.

## ❖ Durability

Adequately manufactured bricks are incredibly durable, often lasting hundreds of years.



# Properties of Bricks

## ➤ Absorption

Brick absorption value varies from product to product. Absorption refers to the quantity of water a brick can absorb, as a percentage of its total weight. Ordinary building bricks shouldn't have higher absorption than 25%.

## ➤ Size

Brick sizes vary across the world, with the UK standard brick size being 20cm x 9.5cm x 5.5cm or 19cm x 9cm x 9cm.

## ➤ Shape

Brick shapes should ideally be rectangular, with well-defined, sharp edges and an even surface. However, some brick manufacturers can produce specially-designed products, such as long format bricks.

➤ Bricks should be properly burnt, making a sharp metallic sound when struck together.



# Uses of Bricks

1. Good quality bricks (1st and 2nd class) are used in the construction of buildings, tunnels, etc.
2. 3rd class and unburnt bricks are used for temporary structures.
3. 4th class bricks are used as aggregate for making concrete.
4. Bricks are also used for architectural purposes to give aesthetic appearance to the structure.



*Thank You!!*