TRADE OF PLASTERING

PHASE 2

Module 1

SLABBING, RENDERING, FLOATING AND SKIMMING

UNIT: 9

Plinths and Soft Screeds

Produced by

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Introduction

Welcome to this section of your course which is designed to introduce you the learner, to plinths, areas and volumes.

Unit Objective

By the end of this unit each apprentice will be able to:

- Describe recessed and projecting plinths
- Calculate areas and volumes

1.0 Describe Recessed and Projecting Plinths

Key Learning Point

- Different types of plinth and their purpose

1.1 Plinths and Their Purpose

Plinths are bands of plaster formed at the bottom of external walls for protection and decorational purposes. The height is guided by finding out the levels of paths or drives and measuring up 300mm to 375mm from this point. Plinths can be either (a) Recessed or (b) Raised. Laths or Metal Stop Beading are used for these plinths.

Recessed Plinths are formed by taking a measurement and driving a nail at both ends of the wall, straining a line between them and then the laths are fixed to the underside of the line making sure they are not touching. A band of mortar is then laid on over the lath and nibbed out to the face to form a good arris and left overnight. This will form a bell cast over the plinth and throw off the water from the bottom of the wall. The plinth itself will be finished 15mm approx. back from the face of the wall.

External Render Stop is the perfect way to achieve a neatly formed 'Bell Cast' where the plastering stops at the junction of facing brick or plain bases. It is easily fixed to most backgrounds by using masonry nails and also helps to support the bell cast in the early stages.

This can be cut by using a hacksaw and snips.

Raised or Projected Plinths are formed by again getting the right measurement, straining a line and fixing the lath, this time above the line. It is then nibbed out to the bottom of the lath forming a good arris and left overnight. The lath is then stripped off and the top of the plinth chamfered or splayed to stop the water from lodging at the top or getting down behind. The main wall when finished will be 15mm approx. back from the face of the plinth. The plinth is then laid on, straightened, floated, scoured up and napped.

2.0 Calculate Areas and Volumes

Key Learning Point

- Calculation of areas and volumes

2.1 Calculation of Areas and Volumes

Calculations for the practical plasterer are all based on areas and volumes. A plasterer is expected to calculate for example, how many slabs are required for a given job, or to calculate the volume of sand or finish coat.

The formula is 'the perimeter of the room multiplied by the height of the room'. The perimeter of the room means the individual wall lengths added together, and should include any door openings. Door and window openings will be added together later, and deducted from the gross area.

Length of room is 5 metres; width of room is 3 metres

If the room is rectangular there will be two walls that are 5 metres long, which equals 10 metres, and two walls that are 3 metres long, which equals 6 metres.

10 metres plus 6 metres = 16m

We have now established that the perimeter of the room is 16m. This must now be multiplied by the height of the room, which we shall say is 3 metres.

16 × 3 = 48 square metres or 48m²

There will, naturally, be door and window openings in the room which will not be plastered areas. These must be deducted from the 48m² gross wall area. Let us say that the following items are present in the room.

- 1 door 2m high × 1m wide = 2m²
- 1 window 2m high × 3m wide = 6m²
- 1 window 1.5m high × 2m wide = 3m²
- Total deductions to be made = 11m²
- Deduct 11m² from 48m² = 37m² of actual plastered work.

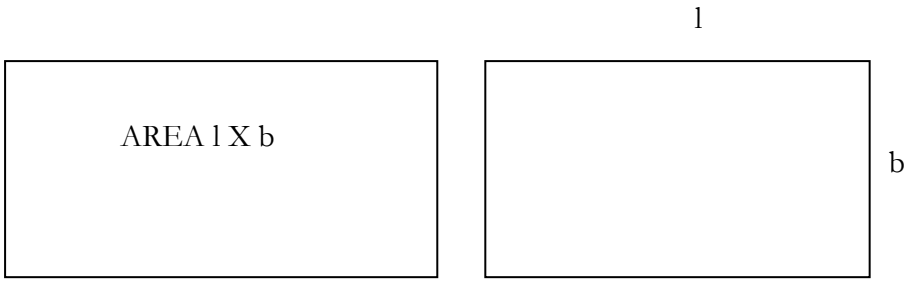
Volume

The rectangle and square

If we denote the sizes of a rectangle by lengths l and b when the area of the rectangle is found by multiplying l and b together

Area = l x b

In a square l and b are equal



The volume of a rectangular or square solid is found my multiplying together its length, breadth and thickness.

Volume = l x b x t

The weight of a solid is found by multiplying its volume by the weight of unit volume of the material in it.

For steel this weight is 0.282lb per cubic inch. Hence for steel: weight of solid = volume in cubic inches x 0.282.

Find the volume of each of the following areas

1. Length 2m, height 3m, width 4m.
2. Length 1m, height 2m, width 3m.
3. Length 1.5m, height 2m, width 2.5m.
4. Length 1m, height 3.5m, width 1.75m.
5. Length 1.25m, height 2.25m, width 1.75m.
6. Length 3.6m, height 0.65m, width 2.1m.

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