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Building construction materials

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Outline

- Introduction
- Factors to be considered for selection of building construction materials
- Properties of building materials
- Building materials
- General requirement of dairy floors and floors for different sections
- Structural aspect of foundation roofs ceiling walls doors and windows



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Introduction

Factors to be considered for selection of building construction materials

Effect of atmospheric conditions on the building

- Effect of prevailing conditions in the plant such as water, water vapor, high temperature, acids, alkalis and wear and tear.
- Durability of material under conditions to which it is exposed
- Ease of cleaning and maintenance
- Availability of the materials
- Cost of materials



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Properties of building materials

Generally building materials are classified into three groups as under.

- (i) Solid materials stones, bricks, iron etc.
- (ii) Cement Materials lime, cement etc.
- (iii) Protective materials paints, varnishes etc.



General requirement of dairy floors

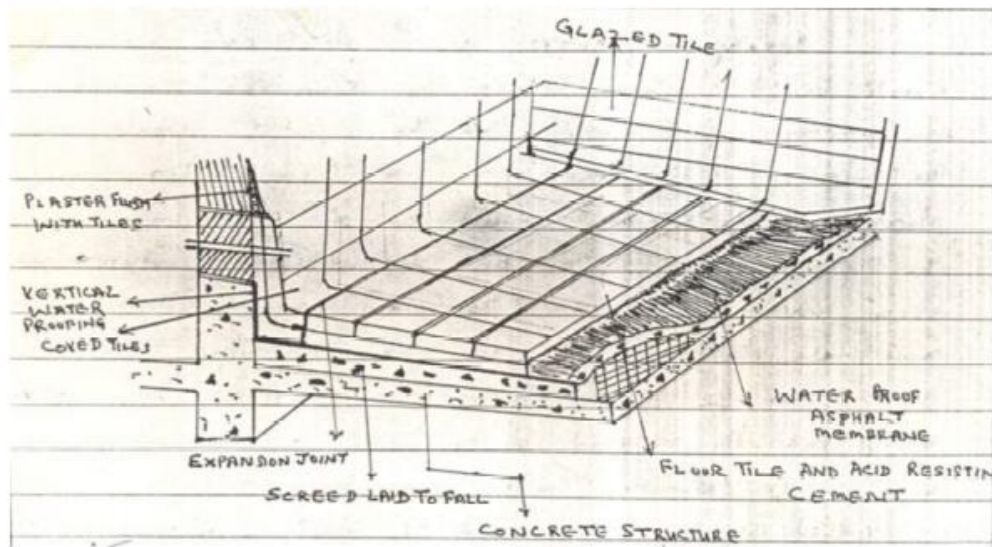


Fig. 28.1 Floor Construction



Structural aspect of foundations, roofs, ceilings, walls, doors, and windows

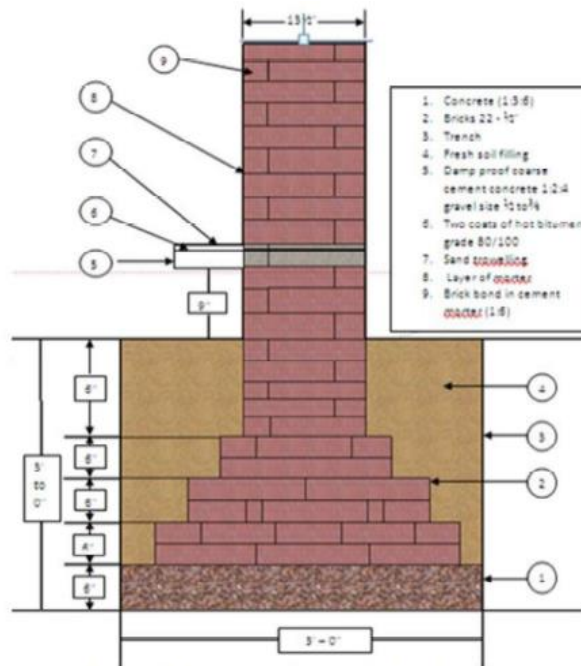


Fig. 29.1 Section of stepped foundation



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Doors

Types of doors

- Ledged door
- Ledged and braced door
- Frame and ledge door
- Frame and paneled door
- Louvred door
- Flush door
- Door without hinges
- Sliding door
- Rolling steel door
- Collapsible door
- Revolving door



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Windows / Roofs / Ceiling

Roofs are classified as flat, semi-steep and steep depending on the slope provided. Flat roofs have rise from zero

(level) to 8 inches per horizontal foot. The rise in semi-steep roofs varies from 3.25 to 12 inch rise per

horizontal foot. The rise of steep roofs varies from 13 to 24 inch rise per horizontal foot. In many factories and

food plants roofs are generally flat or semi-steep type.



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Thank you