UNIT M Level 1
From raw material to earth mix – for clay plaster

Learning outcomes
Criteria and indicators

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### Knowledge

- Main constituents of earth as a raw material
- Basic properties of earth – texture, cohesion, plasticity, colour and behaviour in relation to water
- Field Identification tests for earth
- Composition of clay plaster
- Differences between base coats and finish coats
- Principal performance standards for finished plasters
  - stability and adhesion for all coats and absence of cracks in the finish coat
- Use and effects of aggregates and fibre
- Test method for determining the correct mixture for a base coat and for a finish coat
- The differences between made mixes from raw materials and bought, readymix products
- Environmental and health benefits of clay plasters

### Skills

- Conduct field identification tests
- Prepare raw materials (sieve, soften in water)
- Make sample test panels in a logical sequence following instructions
- Make the mix by hand and by machine
- Make sample boards
- Use the provided materials, tools and equipment
- Organise the work place
- Comply with workplace safety requirements at all times

### Competence

- Under direct supervision prepare plaster and sample boards for a base coat and a finish coat
- Describe the steps for producing mixes
## Criteria for the Evaluation of Skills

### From raw material to earth mix

#### Criteria

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Indicators</th>
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</thead>
<tbody>
<tr>
<td>Quality of the Plaster Mix</td>
<td>• The proportions in the plaster mix follow the instructions</td>
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<tr>
<td>Workability</td>
<td>• The consistency conforms to instructions</td>
</tr>
<tr>
<td>Recipe</td>
<td>• Test sample thicknesses and size are the same</td>
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<tr>
<td></td>
<td>• The mixes for the test samples are made according to instructions</td>
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<tr>
<td>The Mix</td>
<td>• Each mixing cycle follows the recipe</td>
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<td></td>
<td>• The plaster mix is homogenous</td>
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<tr>
<td>Preparation</td>
<td>• The constituents are prepared according to the instructions</td>
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<td></td>
<td>• Field tests have been performed accurately</td>
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<tr>
<td>Sample boards</td>
<td>• Sample boards are well executed</td>
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</tbody>
</table>

Ensure that standards of work and materials comply with relevant codes of practice and to current standards
### Criteria for the assessment of the method of work (criteria of skills evaluation)

<table>
<thead>
<tr>
<th>Unit M</th>
<th>Method of Work</th>
<th>Level 1</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SUB-CRITERIA</strong></td>
<td><strong>INDICATOR</strong></td>
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<tr>
<td>Organisation</td>
<td>• Logical organization of both the work space and the order of work tasks</td>
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<tr>
<td>Economy of materials and time</td>
<td>• Optimum use of materials and time – no wastage</td>
<td></td>
</tr>
</tbody>
</table>
| Use of tools and machines | • The use of the machines conforms to the operating instructions  
  • The use of machines, tools and equipment and the handling of materials is conducted ergonomically  
  • The handling and use of tools, machines, equipment and materials is done skillfully and carefully |         |
| Work place | • Tools and machines are cleaned and returned tidily to their correct place |         |
| Safety | • All Protective safeguards are in place  
  • The erection of ladders and scaffolding conforms to regulations |         |
| Wastage | • Wastage is appropriately sorted, stored, recycled, removed and disposed of according to regulations |         |
| Communication | • Problems during the working process or any deviation from the specifications are reported  
  • The finished work is reported / explained orally  
  • Progress and the various stages of work are discussed with the work team  
  • Instructions that are not understood are questioned |         |