

UNIT M Level 1

From raw material to earth mix – for clay plaster

Learning outcomes Criteria and indicators

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First edition: Leonardo da Vinci Project, Lernpunkt Lehm 2007-2009





From raw material to earth mix

ECVET
Unit M

Level 1

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 plaster
 - 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, readimix products
- Environmental and health benefits of clay plasters

- Preparation and mixing of clay plaster :
 - Tools, machinery and equipment
 - The order of work in making plaster
 - Safe and healthy working practices

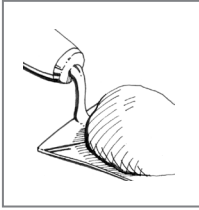
Skills

- 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



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Criteria for the Evaluation of Skills

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Criteria	Indicators
Quality of the Plaster Mix	<ul style="list-style-type: none">• The proportions in the plaster mix follow the instructions
Workability	<ul style="list-style-type: none">• The consistency conforms to instructions
Recipe	<ul style="list-style-type: none">• Test sample thicknesses and size are the same• The mixes for the test samples are made according to instructions
The Mix	<ul style="list-style-type: none">• Each mixing cycle follows the recipe• The plaster mix is homogenous
Preparation	<ul style="list-style-type: none">• The constituents are prepared according to the instructions• Field tests have been performed accurately
Sample boards	<ul style="list-style-type: none">• Sample boards are well executed

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)

Unit M	Method of Work	Level 1
SUB-CRITERIA	INDICATOR	
Organisation	<ul style="list-style-type: none"> • logical organization of both the work space and the order of work tasks 	
Economy of materials and time	<ul style="list-style-type: none"> • Optimum use of materials and time – no wastage 	
Use of tools and machines	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • Tools and machines are cleaned and returned tidily to their correct place 	
Safety	<ul style="list-style-type: none"> • All Protective safeguards are in place • The erection of ladders and scaffolding conforms to regulations 	
Wastage	<ul style="list-style-type: none"> • Wastage is appropriately sorted, stored, recycled, removed and disposed of according to regulations 	
Communication	<ul style="list-style-type: none"> • 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 	