

ATCM-2521: BASIC CEMENT PATCHING

Cuyahoga Community College

Viewing: ATCM-2521 : Basic Cement Patching

Board of Trustees:

October 2020

Academic Term:

Fall 2021

Subject Code

ATCM - Appd Indus Tech-Cement Masonry

Course Number:

2521

Title:

Basic Cement Patching

Catalog Description:

Study of essentials to properly patch and rub walls for finishing and steps necessary to take when preparing the walls.

Credit Hour(s):

1

Lecture Hour(s):

1

Requisites

Prerequisite and Corequisite

Departmental approval: admission to Cement Mason's apprenticeship program.

Outcomes

Course Outcome(s):

Recognize when a wall needs to be rubbed or patched.

Objective(s):

1. Match terms and definitions associated with grinding and rubbing.
2. Arrange in order the steps to take when preparing concrete for grinding and rubbing.

Course Outcome(s):

Determine types of grinder blades and grinders to use when preparing a wall.

Objective(s):

1. Name reasons for rubbing walls.
2. List types of equipment used to grind walls.

Course Outcome(s):

Prepare wall in accordance with industry and job standards.

Objective(s):

1. Demonstrate the ability to rub a wall.
 2. Demonstrate the ability to grind a wall.
 3. Demonstrate the ability to patch large holes in a wall.
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Methods of Evaluation:

1. All students will be evaluated during the first two weeks and at mid-term. Progress reports will be issued per procedure. Additional course evaluations and final examination are detailed below:
 - a. Quizzes
 - b. Tests
 - c. Class participation
 - d. Group activities
 - e. Hands-on projects

Course Content Outline:

1. Terms and definitions:
 - a. Rubbing
 - b. Wet grinding
 - c. Patching
 - d. Honeycomb
 - e. Bonding agent
 - f. Paste
 - g. Form work
 - h. Fin
 - i. Burlap
 - j. Dust
2. Steps to take when preparing concrete for rubbing
 - a. Break off form ties
 - b. Chip off heavy fins
 - c. Remove cone inserts
 - d. Dry-grind concrete
 - e. Fill form-tie holes, cone insert holes, honey comb and any other defect
3. Methods used to rub concrete
 - a. Wet grinding with a hand stone
 - b. Wet grinding with a power grinder
4. Reasons for rubbing
 - a. Improve appearance
 - b. Seal surface from exposure
 - c. Fill voids in preparation for final finish
5. Timing to rub concrete
 - a. Removing forms
 - b. Concrete hardened
 - c. No loosening or pulling out aggregate
6. Results of premature grinding
 - a. Too much surface fines taken off
 - b. Large aggregate loosened
 - c. Large aggregate pulled out

Resources

American Concrete Institute. *The Contractor's Guide to Quality Concrete Construction*. 4th ed. American Concrete Institute, 2018.

Resources Other

- <https://www.opcmia.org/training/>
- Concrete and Cement Masonry, Developed by the Curriculum and Instructional Materials Center for the Trade and Industrial Education Division Oklahoma Department of Career and Technology Education, 2002
- American Concrete Institute. <https://www.concrete.org/> (<https://www.concrete.org/>) 2019

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