

ATPT-1330: FILLING COMPOUNDS AND PROCEDURES

Cuyahoga Community College

Viewing: ATPT-1330 : Filling Compounds and Procedures

Board of Trustees:

September 2025

Academic Term:

Fall 2025

Subject Code

ATPT - Appld Indus Tech - Painting

Course Number:

1330

Title:

Filling Compounds and Procedures

Catalog Description:

Instruction in basic elements and procedures for using filling compounds, including terminology, selection of filler, elements of drying, application of filler with trowel and broad knife, and finish sanding.

Credit Hour(s):

2

Lecture Hour(s):

2

Requisites

Prerequisite and Corequisite

Admissions to Painting Technology apprenticeship program, or departmental approval.

Outcomes

Course Outcome(s):

N/A

Objective(s):

1. Identify the elements and characteristics of filling compound, various types of fillers, and select the proper filler for a particular job.
2. Explain the variables associated with drying of filling compound including water absorption, moisture, temperature and humidity, and ventilation.
3. Apply various types of filler coats with the four basic filling strokes with a trowel and broad knife.
4. Demonstrate the procedure for filling various types of beads, butt joints, flats, fasteners, angles, and other surfaces using a trowel and broad knife.
5. Demonstrate the procedure for finish sanding ceilings and walls.

Methods of Evaluation:

1. Quizzes
2. Exams
3. Classroom participation
4. Demonstration of assigned projects

Course Content Outline:

1. Introduction
2. Filling compounds

- a. General characteristics
- b. Filler formulations
- c. Terminology
- d. Filling compound elements
- 3. Fillers in filling compounds
 - a. Binders
 - b. Thickeners
 - c. Additives
 - d. Casein
 - e. Vinyl filler
 - f. Pre-Mix filler
- 4. Taping, topping, and all-purpose filler
 - a. Taping filler
 - b. Topping filler
 - c. All-Purpose filler
 - d. Fast-Set filler
 - e. Lightweight fillers
- 5. Mixing fillers
- 6. Drying
 - a. Water absorption and drying
 - b. Problems related to moisture and drying
 - c. Temperature and humidity
 - d. Drying times
 - e. Ventilation
- 7. Filling by hand (trowel and broad knife)
 - a. Maintaining hand tools
 - i. trowels
 - ii. knives
 - iii. hawks
 - b. Selecting the right filler
 - c. Testing for dry filler
 - d. Types of filler coats
 - i. first (loading) coat
 - ii. second coat
 - iii. third (polish) coat
 - iv. skim coat (level 5 finish)
 - e. Knife and trowel holding positions
 - f. Basic filling passes (strokes)
 - i. loading
 - ii. feathering
 - iii. removing the excess
 - iv. joining wet filler
 - g. Rough sanding
 - h. Filling beads
 - i. vertical
 - ii. horizontal
 - iii. parallel beads
 - iv. intersecting beads
 - i. Filling butt joints and flats
 - j. Filling fasteners, angles, rounded and other surfaces
 - i. fasteners
 - ii. angles
 - iii. rounded surfaces
 - iv. floating uneven butt joints on concave surface
 - v. flats on curved surfaces
 - vi. rounded angles

- k. Finish sanding
- l. Final inspection

The Course Schedule is subject to change due to pedagogical needs, instructor discretion, parts of term, and unexpected events.

Resources for the Instructor

International Brotherhood of Painters and Allied Trades Joint Apprenticeship and Training Fund. *Filling By Hand (Broad Knife)*. Washington, D.C.: IBPATJATF, 1998.

International Brotherhood of Painters and Allied Trades Joint Apprenticeship and Training Fund. *Filling By Hand (Trowel)*. Washington, D.C.: IBPATJATF, 1998.

International Brotherhood of Painters and Allied Trades Joint Apprenticeship and Training Fund. *Filling Compounds*. Washington, D.C.: IBPATJATF, 1998.

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