



Insulating

Level Two

EXAMINATION PACKET

Module 19203 Installing Board Insulation for Ducts

This packet contains the reproducible Module Examination, Answer Key, and Performance Profile Sheet(s).

**STORE IN A
SECURE AREA!**

**NATIONAL CENTER FOR
CONSTRUCTION EDUCATION AND RESEARCH**

Pearson Education, Inc.

Upper Saddle River, New Jersey Columbus, Ohio

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Name: _____

Date: _____

Social Security Number: _____

- _____ 1. When working with fiberglass board insulation, where should the cutting board be located?
- In the storage trailer
 - On the ground floor
 - Near the duct to be insulated
 - Outside the building
- _____ 2. Where there are several ducts to be insulated in a room, which duct should be insulated first?
- The duct easiest to reach
 - The duct with the highest elevation
 - The duct on the floor
 - The exhaust duct
- _____ 3. If the side of the duct to be insulated measures 24 inches and the width measures 60 inches, what size would the side piece be cut?
- No cut is required. The material is 24" wide
 - 26-1/2"
 - 22"
 - 60"
- _____ 4. How close to the edge of a duct should pins be placed?
- 3"
 - 1"
 - 12"
 - 18"
- _____ 5. What should be used to ensure straight cuts in fiberglass board?
- Chalk line
 - Straight edge
 - Level
 - Saw
- _____ 6. When measuring board insulation for cutting, you notice a slight bulge on the side of the duct. How much should you add to the bottom measurement to compensate for the bulge?
- 1"
 - 2"
 - 1/2"
 - 3/4"
- _____ 7. When measuring and cutting board insulation, you should mark the standing seam on the length of the board, and place the straight edge _____.
- 3/16" to the left of the mark
 - 1/2" to the left of the mark
 - 1/2" to the right of the mark
 - 3/16" above the mark

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- _____ 8. The different sizes of kerfing or V-groove tools refer to _____.
- the thicknesses of insulation on which the tool will be used
 - the depth of cuts the tools will make in the insulation
 - the length of the tools' blades
 - the length of the tool itself
- _____ 9. What size should the small pieces of tape be cut to cover clips?
- At least 6" long
 - Not over 6" long
 - 2"
 - Square
- _____ 10. Fiberglass board insulation is manufactured _____.
- in densities up to 10 lbs.
 - in thicknesses up to 8"
 - with vinyl facing
 - in standard widths of 24" by 48"
- _____ 11. The upper temperature limit of fiberglass board with facing is _____.
- 750 degrees
 - 250 degrees
 - 450 degrees
 - 212 degrees
- _____ 12. The most commonly used fiberglass board densities are _____.
- 1-1/2 and 2 pound
 - 3 and 6 pound
 - 2 and 4 pound
 - 6 and 9 pound
- _____ 13. The most common thickness of fiberglass board is _____.
- 1-1/2" and 2"
 - 3/4" and 1"
 - 1/2" and 3/16"
 - 1" and 2-1/2"
- _____ 14. Fiberglass board insulation can be installed _____.
- at the largest duct
 - before the ceiling grid is in place
 - anywhere in the duct system
 - after the duct has been tested
- _____ 15. If a duct is internally insulated, you should _____.
- leave it alone
 - butt it up to the internally lined duct.
 - call the architect
 - overlap the external insulation on the internally lined duct
- _____ 16. Fiberglass board is generally used where _____.
- it is subject to abuse
 - duct is exposed to view
 - a cheap job is needed
 - it is subject to getting wet

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- _____ 17. Fiberglass board is secured to the duct by _____.
a. cupped-head pins
b. weld pins
c. adhesive pins
d. the method called for by the specifications
- _____ 18. A lateral is _____.
a. a 90-degree elbow
b. used in plumbing
c. a 45-degree tee
d. a pipe that joins another pipe vertically
- _____ 19. To “vee” means to _____.
a. swerve
b. cut out for a standing seam
c. cut a section of board so that it can bend to fit a radius
d. cut for a weld
- _____ 20. Sealing with mastic _____.
a. requires protection from spills and splatters
b. is neat and clean
c. is usually not required
d. requires extensive safety precautions

NOTE ON PERFORMANCE PROFILE TESTING

Performance Profiles are included in this Instructor's Guide in a format that can be easily photocopied for each trainee. The Profiles measure trainee competency in the tasks taught in this module.

Please note the number of tasks to be tested while teaching this module. Each trainee should be tested on the tasks listed in the Performance Profile. Before the performance testing, the instructor should brief the trainees on:

- test objectives and criteria,
- safety precautions, and
- procedures for each task to be tested.

The instructor administering the performance testing should also do the following:

- ensure that all of the needed equipment is available and operating properly;
- set up the testing stations;
- organize and administer the test in a way that allows for optimal performance;
- complete the Performance Profile Sheet for each trainee by assigning a score for each listed task;
- monitor adherence to all safety regulations and precautions;
- provide adequate supervision to prevent injuries; and
- take immediate and effective action to remedy any emergency.

ACCREDITATION TESTING

If this Performance Profile Testing is done in the National Center for Construction Education and Research Standardized Craft Training Program, the following conditions must be met:

1. The Craft Instructor must hold valid NCCER instructor certification.
2. The training must be delivered through a Training Program Sponsor recognized by the NCCER.
3. For every module, the specific performance testing must be completed to the satisfaction of the instructor.
4. The results of the testing must be recorded on the Craft Training Report Form. This form must be provided to the local Training Program Sponsor to be forwarded to the NCCER National Craft Training Registry.

Craft: Insulating

Task Module Number: 19203

Task Module Title: Installing Board Insulation For Ducts



TRAINEE NAME: _____

TRAINEE SOCIAL SECURITY NUMBER: _____

CLASS: _____

TRAINING PROGRAM SPONSOR: _____

INSTRUCTOR: _____

- Rating Levels:**
1. Passed: performed task.
 2. Failed: did not perform task.

Recognition: When testing for the NCCER Standardized Craft Training Program, be sure to record Performance Profile testing results on Craft Training Report Form 200 and submit the results to the Training Program Sponsor.

TASK	RATING
1. Identify all tools needed to install fiberglass board insulation including attachments.	
2. Apply insulation weld pins to ductwork.	
3. Apply fiberglass board insulation to straight duct and seal all joints with tape.	
4. "Vee" cut, lay out, and install board insulation for a 12-inch round lateral.	

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Answer Key to Module Examination

<u>Answer</u>	<u>Section</u>
1. c	4.0.0
2. b	4.0.0
3. a	4.0.0
4. a	5.1.0
5. b	4.0.0
6. c	4.0.0
7. a	4.0.0
8. a	4.0.0
9. d	8.1.0
10. d	2.0.0
11. c	2.0.0
12. b	2.0.0
13. a	2.0.0
14. d	3.0.0
15. d	3.0.0
16. b	3.0.0
17. d	5.0.0
18. c	7.0.0
19. c	6.0.0
20. b	8.2.0