Insulating

Level Two

Module 19204
Installing Calcium Silicate/ Expanded Perlite Pipe Insulation

EXAMINATION PACKET

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

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NATIONAL CENTER FOR CONSTRUCTION EDUCATION AND RESEARCH

Pearson Education, Inc.

Upper Saddle River, New Jersey Columbus, Ohio

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Module Examination **TASK MODULE 19204** **Installing Calcium Silicate/ Expanded Perlite Pipe Insulation**

Name: _____ **Date:** _____

Social Security Number: _____

_____ 1. When using preformed or prefabricated calcium silicate/expanded perlite fitting covers, which of the following is correct for installation?

a. Install all pipe insulation, then install the fitting covers.
b. Install pipe insulation and jacket first.
c. Install fitting covers, then install pipe insulation.
d. Install only short radius fitting covers.

_____ 2. Calcium silicate/expanded perlite is manufactured in _____.

a. 36 inch pre-slit sections
b. 48 inch long block form
c. single layer to 6" thick
d. 36 inch half section pipe or long block

_____ 3. "Wick-up" means _____.

a. to absorb water from the air
B. to absorb water from the floor
c. to absorb water by the entire mass of the insulation even above the water level
d. to absorb water only on the surface of the insulation

_____ 4. Calcium silicate/expanded perlite is used primarily on _____.

a. low temperature work
b. chill water systems
c. underground piping
d. high temperature systems

_____ 5. Which of the following tools are *not* used in the application of calcium silicate/ expanded perlite?

a. Rule
b. Knife
c. Nippers
d. Pin welder

_____ 6. The most common method of applying calcium silicate/ expanded perlite is _____.

a. bands
b. wire
c. adhesive
d. tape

_____ 7. Calcium silicate/expanded perlite is classified as _____.

a. flexible
b. semi-rigid
c. low-density
d. rigid

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Installing Calcium Silicate/Expanded Perlite Pipe Insulation

_____ 8. If scaffolds or ladders are required to install the pipe insulation, a(n) _____ is/are required.

a. superintendent and a mechanic
b. carpenter
c. two person crew
d. insulator

_____ 9. A single layer application requires the longitudinal joint to be _____.

a. staggered
b. at the horizontal mid-line of the pipe
c. parallel to the circumferential joint
d. at the under and upper sides of the horizontal pipe runs

_____ 10. Preformed insulation around fittings should be installed ____.

a. before the pipe insulation
b. after the pipe insulation
c. in the shop
d. by mechanics only

_____ 11. Trimming the pipe insulation at protrusions _____.

a. is not important
b. must be done to eliminate cracks
c. is done with a knife
d. requires a vapor barrier

_____ 12. Traced pipe _____.

a. is usually not insulated
b. uses one insulation size larger than the pipe size
c. is never used in low temperature applications
d. is easier to insulate than normal pipe

_____ 13. Double-layer installations _____.

a. do not require expansion joints
b. do not require joints to be staggered
c. generally have the outer layer wired in placed
d. are used in high temperature applications

_____ 14. Pipe hangers _____.

a. are normally left uninsulated
b. are not required in hot service
c. are insulated for personal protection
d. normally require insulation to be cut out to fit around the supports

_____ 15. Insulation finishes are _____.

a. usually not required
b. easy to apply
c. always factory applied
d. used as weatherproofing

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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: 19204

Task Module Title: Installing Calcium Silicate/Expanded Perlite Pipe Insulation

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 calcium silicate/expanded perlite pipe insulation.	
2. Cut and attach pipe insulation using the staggered-joint method of installation.	
3. Install an outer layer over the layer of insulation applied in Task #2; stagger all joints; and band the outer layer in place using pistol grip banders.	

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Answer Key to Module Examination

Answer		Section
1.	c	1.0.0
2.	d	1.0.0
3.	c	Trade Terms
4.	d	1.1.0
5.	d	Materials List
6.	b	2.0.0
7.	d	3.0.0
8.	c	2.1.0
9.	d	2.0.0
10.	a	2.0.0
11.	b	3.0.0
12.	b	3.0.0
13.	d	4.0.0
14.	d	3.1.0
15.	d	2.0.0