

STEEP-SLOPE ROOF SYSTEMS EXAM



NRCA
PROCertification®

NATIONAL ROOFING CONTRACTORS ASSOCIATION



NRCA ProCertified® Roof System Installer Steep-slope Roof Systems Exam Content Outline

Individuals who want to earn an NRCA ProCertified® Roof System Installer certification for a steep-slope roof system must pass the NRCA ProCertified Roof System Installer Steep-slope Roof Systems Exam before scheduling a hands-on performance exam.

Refer to the NRCA ProCertification® Quick Start Guide for Roof System Installers and other resources available at nrca.net/procertification to learn more about certification.

Test Format

The NRCA ProCertified® Roof System Installer Steep-slope Roof Systems Exam is an online exam. The exam has these features:

- It contains 60 questions in multiple-choice format.
- It can be taken in English or Spanish.
- Test takers can choose to hear audio versions of questions and answers in addition to viewing the text.
- It can be accessed from NRCA's website at any time .
- The test can be taken before or after applying for certification.
- Candidates can take the exam as many times as necessary to achieve a passing score. Additional registration may be required.
- Results of a successful test are valid for 12 months to meet the eligibility requirement for NRCA ProCertification.®

Test Content

Questions on the exam are not system-specific and are common to steep-slope roof systems. NRCA defines steep-slope roofs as: A category of roofing that generally includes water-shedding types of roof coverings installed on slopes exceeding 3:12.

The test is developed to assess general steep-slope roofing knowledge shown in the content outline below. The approximate percentage of the test devoted to each high-level topic is shown in the outline.

Technical content in exams is based on NRCA's technical manuals and best practices. Exam questions about safety are based on federal regulations that affect roofing workers. They are not based on regional, state or local regulations.

The following outline lists all the topics included in the NRCA ProCertified® Roof System Installer Steep-slope Roof Systems Exam. It is recommended candidates review this outline and ensure they are familiar with all topics before taking the exam.

I. Project Safety (16% of exam)

A. Fall protection

1. Setup, use and maintenance of personal fall-arrest systems while working on steep-slope roofs
2. Setup and use of other fall-protection systems while working on steep-slope roofs
 - a. Guardrail systems
 - b. Holes and skylight covers
 - c. Safety nets
3. Moving and walking safely on a steep-slope roof

B. Selection, use and maintenance of proper personal protective equipment

1. Eye protection
2. Hand protection
3. Head protection (hard hats)
4. Clothing
5. Foot protection
6. Hearing protection
7. Respiratory protection

C. General roofing safety

1. Company-specific safety programs
2. Roles and responsibilities for working safely
3. Selection, setup and use of ladders
4. Work safely with scaffolds, roofing slide guards and work platforms
5. Work safely around cranes and hoists; basic rigging, hand signals and work practices
6. Keep people below roof level safe
7. Work safely with electrical extension cords and powered tools
8. Importance of grounding electric cords and powered tools
9. Work safely with pneumatic powered tools and equipment
10. Safely handle flammable liquids
11. Protect property during roofing operations

II. General Work Practices and Communication (6% of exam)

A. General work practices

1. Participate effectively in conversations using basic roofing terminology
2. Perform essential roofing measurements and calculations
3. Perform tasks with pride and seek to achieve high-quality standards
4. Carry and accept personal responsibility and accountability for work performance

B. Communication

1. Conduct strong two-way communication with supervisors
2. Conduct clear, honest communication with customers
3. Regularly review and clarify project objectives
4. Actively participate in meetings and conversations to identify and address safety hazards, issues or problems on a job site

III. Tools and Equipment (6% of exam)

A. Tool identification and usage

1. Identify and select the proper tools and equipment used to install each type of steep-slope roof system
2. Demonstrate proper and safe use of all tools and equipment used to install steep-slope roof system
3. Identify and select the specific PPE required when using each type of tool or equipment for a specific roofing project
4. Locate and properly use safety equipment such as fire extinguishers, water access and first aid equipment

B. Inspection and maintenance

1. Inspect all ladders, tools and equipment as required
2. Maintain tools properly
3. Tag and remove defective or unsafe tools or equipment
4. Repair or replace tools in a timely manner

C. Equipment usage

1. Verify safety equipment, such as fire extinguishers, first aid kits, and PPE are on-site
2. Regularly inspect roofing equipment, including ladders, generators and high-pressure equipment for defects

IV. System Materials (5% of exam)

A. General system materials knowledge

1. Identify various materials that may be used on a steep-slope roof (such as underlayment, valley liner, flashings, shingles)
2. Determine coverage area of various steep-slope materials
3. Read, identify and implement information found in a safety data sheet
4. Describe how to reduce hazard exposures when working with specific materials

V. Materials Installation (43% of exam)

A. General installation preparation

1. Setup and inspection of all safety-related equipment and devices
2. Installation sequence for all required system components
3. Fastening patterns and attachment requirements for all materials and accessories
4. Staging and positioning of all required materials, tools and equipment
5. Inspection of all materials and accessories for damage; replace as necessary

B. Re-cover preparation

1. Removal of existing flashings or accessories as specified
2. Removal of other roofing materials to be replaced
3. Removal of debris and loose materials from existing roof surface

C. Underlayment and system material installation

1. Substrate preparation
2. Layout and attachment of all types of underlayment materials, including sidelaps and endlaps, to meet specifications
3. Repair and replacement of damaged underlayment before covering

4. Various steep-slope material installation processes, sequencing and procedures
5. Identify different fastener types and installation procedures
6. Attachment of various types of steep-slope systems to meet specifications
7. Quality control process when installing materials

VI. Flashings and Accessories (19% of exam)

- A. General flashing and accessory knowledge
 1. Identify the functions of various flashing and accessory types
 2. Follow the installation sequence for all required flashing components and accessories
- B. Flashing and accessory installation
 1. Determine the attachment method for each flashing component and accessory, including fastener type and locations to meet project requirements and manufacturers' specifications
 2. Installation of attic ventilation accessories including continuous ridge, static, mechanical and powered vents
 3. Installation of vertical surface flashing components and accessories at walls, chimneys, curbs and kick-outs including apron; headwall; step; cricket or backer; and counterflashings
 4. Installation of flashing components and accessories at roof slope transitions
 5. Apply mastics and sealants at all flashing and accessory details to meet project requirements and manufacturers' specifications

VII. Job-site Housekeeping (5% of exam)

- A. General job-site housekeeping
 1. Removal of all kinds of construction waste and debris from all roof surfaces
 2. Clean spills of mastics, sealants, solvents or chemicals from roof surfaces
 3. Ensure sharp-edged materials, fasteners, tools and equipment do not cut, puncture or scrape installed surfaces
 4. Correct any incidental damage to newly installed surfaces or coverings following manufacturer's guidelines
 5. Ensure every completed roofing project is left clean and free of scrap, excess fasteners, waste materials or other debris

Sample Questions

The following sample questions are similar in content and format to the questions on the NRCA ProCertified® Roof System Installer Steep-slope Roof Systems Exam:

1. While at a job site, you are standing on the ground talking to a worker 15 feet up on the roof. According to OSHA regulations, what type of PPE should you be wearing at a minimum?

- A. Safety glasses
- B. A hard hat
- C. Gloves

(The correct answer is B.)

2. How often should tools and equipment be cleaned?

- A. After each project is completed
 - B. At the end of each work week
 - C. After each use
- (The correct answer is C.)

3. What agency creates and publishes safety regulations for the roofing industry in the U.S.?

- A. Occupational Safety and Health Administration
 - B. American National Safety Institute
 - C. National Safety Council
- (The correct answer is A.)

4. What is a commonly used term for the peak of a roof?

- A. Ridge
 - B. Hip
 - C. Valley
- (The correct answer is A.)

5. What should you always do before installing a water and ice-dam protection membrane?

- A. Make sure the roof has been loaded with materials
 - B. Make sure the deck is clean, dry and without gaps
 - C. Install perimeter edge metal
- (The correct answer is B.)

Terminology

Roofing professionals use a variety of terms to refer to some materials or tasks. This is a result of regional differences, different manufacturers' product names or other reasons. However, NRCA makes an effort to provide consistency in terminology in NRCA ProCertification exams. Candidates are encouraged to be familiar with all terms and concepts included in the NRCA ProCertified® Roof System Installer Steep-slope Roof Systems Exam Content Outline using NRCA's glossary of roofing terms. The glossary can be accessed at nrca.net/technical/glossary.

NRCA ProCertified® Roof System Installer Job Task Analysis

NRCA publishes a job task analysis for every NRCA ProCertification® certification. A JTA defines the general body of knowledge, skills and abilities necessary for roofing professionals in that role. NRCA ProCertification online exams and system-specific hands-on performance exams draw from these JTAs. However, individuals preparing to take the online core knowledge exam should focus on studying the NRCA ProCertified® Roof System Installer Steep-slope Roof Systems Exam Content Outline.