## READINESS CHECKLIST





## SLATE SYSTEMS INSTALLER





NATIONAL ROOFING CONTRACTORS ASSOCIATION





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## ProCertified® Slate Systems Installer Readiness Checklist

Congratulations on preparing to take the next step in your career! You are now a candidate for NRCA ProCertification®. NRCA provides this checklist of core knowledge and skills a roof system installer should have gained during the previous two years installing natural slate systems. This checklist is designed to help measure your readiness for the knowledge and skills portions of the ProCertification process. You must pass two exams to earn your installer certification: an online eligibility exam and a hands-on performance exam. The tests can include any or all the knowledge, skills and abilities represented on this checklist.

The NRCA ProCertification exams are administered with the intent to measure and validate a candidate's knowledge and expertise in installing roof systems against a national benchmark. NRCA recognizes and acknowledges regional variances exist for roof system installation. The goal of ProCertification is to recognize universal skills; candidates likely will be asked to perform techniques that may differ from their normal operating procedures. The tests have been developed and approved by installers, contractors, manufacturers and other subject matter experts.

As a requirement of all ProCertification exams, candidates must describe and demonstrate the use of a personal fall-arrest system, including inspecting, fitting, wearing and connecting a PFAS. Additionally, the selection and use of appropriate personal protective equipment also is required.

NRCA has included criteria on which exam scoring is based.

ITEM	√	ACTIVITY		
Safety and Job-site Housekeeping				
1		An installer should be able to demonstrate and discuss methods of personal safety and housekeeping on a job site. An installer must demonstrate the proper use and inspection procedure for maintaining personal fall-protection systems, including how to put on and adjust the harness; connect the lanyard, lifeline and anchor; and locate and install anchor devices. Examples include:  • Fall-protection systems (personal fall-arrest system, guardrails, warning lines)  • Ladder safety  • Hazard communications (safety data sheets, labels, signage, policies)  • Personal protective equipment required to handle, cut, punch holes in or shape slate, including:  - Appropriate hand protection for activity  - Eye protection  - Hard hat  • Material storage, rooftop stocking and handling  - Specific to slate systems  • Tools and equipment  - Specific to slate systems  • Protecting installed slates from damage throughout the installation process  • Maintaining a safe worksite, removing construction waste from substrate and finished roof surfaces to prevent slip and trip hazards.		
2		<ul> <li>Explain elements of a company safety program, including:</li> <li>Policies and procedures common to all company safety programs</li> <li>The goals and purposes of a specific company safety program</li> <li>Regularly contribute to discussions about improving workplace safety with supervisors and co-workers</li> </ul>		
3		Properly use and maintain fall-protection systems, including:  • Personal fall-arrest system components, including:  - Don and adjust harness  - Connect lanyard, lifeline and anchor  - Locate and install anchor devices  • Correct setup and use of guardrails as directed  • Explain general characteristics and use of safety nets		

4	<ul> <li>Select, inspect, set up, secure and use ladders to access rooftop work, including:</li> <li>Not carry anything that could cause a worker to lose balance while climbing a ladder</li> <li>Maintain three points of contact while climbing a ladder</li> </ul>
5	Select, inspect, use and maintain PPE, including:      Head protection     Eye protection     Hand and foot protection     Protective clothing     Hearing protection     Respiratory protection
6	Select, inspect, use and maintain electrical equipment, including:  • Power generators  • Extension cords  • Ground fault circuit interrupters (GFCIs)  • Ability to explain lock-out/tag-out policy and procedure
7	Lift, move and place materials, tools and equipment during all phases of roofing operations, including:  • Job setup  • Tear-off  • Installation  • Job breakdown and clean up  • Seek assistance when handling heavy, bulky or oversize items
8	Visually inspect, use and maintain all tools and equipment, including:  • Follow manufacturer's safety and usage instructions  • Hand tools  • Power tools  • Power equipment  • Only uses tools or equipment that he or she was trained to operate

	General Preparation		
9		<ul> <li>An installer should be able to:</li> <li>Demonstrate and discuss methods of preparing a job site for installing a natural slate system following verbal instruction</li> <li>Stage and layout materials for daily production</li> <li>Identify what areas of the roof will have different slate layouts or exposures</li> <li>Remove any damaged material</li> </ul>	
		Tools and Equipment	
10		An installer should be able to demonstrate and discuss methods of tool selection and care for slate systems. An installer should:  • Inspect tools and equipment condition before every use  • Select the correct tool for a specific task  • Use tools and equipment only for their intended purposes  • Use and maintain tools and equipment per manufacturer instructions  • Only operate powered tools and equipment that he or she has been trained to use  • Clean tools and equipment after each use	
		System Materials	
11		An installer should be able to demonstrate and discuss the general means and methods of installing slate systems. An installer should be able to explain the function(s) of all slate system materials and accessories and be able to:  • Identify area of coverage provided by each piece of slate  • Identify potential problems when handling and cutting slates  • Describe and identify the appropriate fastener types used to install slates  • Identify and remove slates that contain pyrite or other impurities; are warped; or contain defects such as knots, knurls or cramps  • Ring slates and remove broken or delaminating pieces  • Blend, sort and cull slates	
	Substrate Preparation		
12		An installer should be able to demonstrate and discuss methods for substrate preparation and visually inspect steep-slope substrates to ensure they are secure, firm, smooth, clean and dry before installing materials. Examples include:  • Refastening deck • Removing old fastener • Redriving existing nails • Replacing damaged decking	

	Underlayment Layout and Attachment		
13		An installer should be able to demonstrate and discuss methods for underlayment layout and fastening and be able to:  • Sequence underlayment with slate system components  • Lap underlayment materials to ensure water flows over the laps, penetrations, flashings and accessories  • Set and maintain specified underlayment side laps and end laps  • Roll out and attach underlayment without wrinkles, buckles or voids  • Repair or replace damaged underlayment before covering with slates	
Slates Layout and Attachment			
14		An installer should be able to demonstrate and discuss installation means and methods to install a natural slate system and be able to:  • Install all materials parallel to a building's eave when applicable  • Position and drive fasteners in their specified locations and not underdrive or overdrive them  • Install various types of cant and starter slates at eaves  • Achieve and maintain specified spacing (bondline) between each piece of slate and the offsets, exposures, headlaps and alignment as required for a roof's slope  • Maintain specified spacing (bondline) between each piece of slate and the offset, headlaps, exposure and alignment requirements when installing slates around penetrations and dormers  • Measure, cut, trim, fit and field-shape slates using appropriate tools and equipment as required to meet project requirements  • Cut, align and attach slates adjoining hips, ridges walls or valleys, including required wood nailers and flashings, as specified, and maintain the required minimum slate widths and offsets  • Punch and drill holes in slates  • Immediately replace any broken or damaged slates  • Replace broken or missing slates using slate hooks or the nail-and-bib method  • Ensure a visually consistent appearance of finished roof system without wrinkles, buckles or voids	

Flashings and Accessories Installation				
15		An installer should be able to demonstrate and discuss methods to install slate flashings and accessories and be able to:  • Identify components of common flashing details • Install ventilation accessories including continuous ridge, static, mechanical and powered vents • Attach each flashing component and accessory using the specified fastener types and locations • Install flashing components including flanges, boots and accessories where slates intersect penetration pipes or vents • Install drip edge metal flashings at perimeter rake and eave edges • Install various profiles of metal valley flashings • Install various types and profiles of sidewall metal step flashings • Install metal headwall flashings • Install skylight flashing components and accessories • Install flashing components and accessories at all slope transitions, including steep-to-low, low-to-steep and steep-to-steep transition areas		