

# READINESS CHECKLIST



**NRCA**  
PROCertification®

## MODIFIED BITUMEN SYSTEMS INSTALLER



05-2023

NATIONAL ROOFING CONTRACTORS ASSOCIATION





National Roofing Contractors Association  
10255 W. Higgins Road, Suite 600  
Rosemont, IL 60018-5607  
(847) 299-9070  
Website: [nrca.net](http://nrca.net)  
Email: [nrca@nrca.net](mailto:nrca@nrca.net)

Copyright © 2023. National Roofing Contractors Association (NRCA).

All rights reserved. No part of this publication may be produced or transmitted in any form or by any means, electronic or mechanical, including photocopy or recording, or any information and retrieval system, without permission in writing from NRCA.

# **ProCertified® Modified Bitumen 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 polymer-modified bitumen 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 areas of criteria on which exam scoring is based.

ITEM	√	ACTIVITY
<b>Safety: All Application Methods</b>		
1	□	<p>An installer should be able to demonstrate and discuss methods of personal safety on a job site. Examples include:</p> <ul style="list-style-type: none"> <li>• Job-site toolbox talks</li> <li>• Sessions covering safety topics common to all roof system installations, such as: <ul style="list-style-type: none"> <li>- Fall-protection systems (personal fall-arrest system, guardrails, warning lines, safety nets, etc.)</li> <li>- Ladder safety</li> <li>- Hazard communications (SDS, labels, signage, policy)</li> <li>- Personal protective equipment</li> <li>- Electrical</li> <li>- Material handling</li> <li>- Tools and equipment</li> <li>- Fire safety</li> <li>- First aid</li> <li>- Other general health and safety topics relevant to roofing work</li> </ul> </li> <li>• Sessions covering hazard exposures that are specific to modified bitumen system installations, such as: <ul style="list-style-type: none"> <li>- PPE required when working with hot bitumen</li> <li>- Fire and explosion hazards</li> <li>- Airborne contaminants; harmful vapors</li> </ul> </li> <li>• Safe use of a roofing torch when used to heat a roof surface, bitumen, certain membranes or roof application equipment</li> </ul>
2	□	<p>Explain elements of a company safety program, including:</p> <ul style="list-style-type: none"> <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	□	<p>Properly use and maintain the following fall-protection systems:</p> <ul style="list-style-type: none"> <li>• Personal fall-arrest system components, including: <ul style="list-style-type: none"> <li>- Donning and adjusting a harness</li> <li>- Connecting a lanyard, lifeline and anchor</li> <li>- Locating and installing anchor devices</li> </ul> </li> <li>• Correctly setting up warning lines as directed; demonstrating proper warning line use, such as never working outside of warning lines without being observed by a safety monitor</li> <li>• Correctly setting up and using guardrails as directed</li> <li>• Explaining general characteristics and use of safety nets</li> </ul>

4	<input type="checkbox"/>	Select, inspect, set up, secure and use ladders to access rooftop work, including: <ul style="list-style-type: none"> <li>• Not carrying anything that could cause a worker to lose balance while climbing a ladder</li> <li>• Maintaining three points of contact while climbing a ladder</li> </ul>
5	<input type="checkbox"/>	Select, inspect, use and maintain PPE, including: <ul style="list-style-type: none"> <li>• Head protection</li> <li>• Eye protection</li> <li>• Hand and foot protection</li> <li>• Protective clothing</li> <li>• Hearing protection</li> <li>• Respiratory protection</li> </ul>
6	<input type="checkbox"/>	Select, inspect, use and maintain electrical equipment, including: <ul style="list-style-type: none"> <li>• Power generators</li> <li>• Extension cords</li> <li>• Ground fault circuit interrupters</li> <li>• Ability to explain lock-out/tag-out policy and procedure</li> </ul>
7	<input type="checkbox"/>	Lift, move and place materials, tools and equipment during all phases of roofing operations, including: <ul style="list-style-type: none"> <li>• Job setup</li> <li>• Tear-off</li> <li>• Installation</li> <li>• Job breakdown and cleanup</li> <li>• Seek assistance when handling heavy, bulky or oversize items</li> </ul>
8	<input type="checkbox"/>	Visually inspect, use and maintain all tools and equipment, including: <ul style="list-style-type: none"> <li>• Follow manufacturer's safety and usage instructions</li> <li>• Hand tools</li> <li>• Power tools</li> <li>• Power equipment</li> <li>• Only uses tools or equipment that he or she was trained to operate</li> </ul>
9	<input type="checkbox"/>	Identify burn and odor hazards specific to working with asphalt-based roof systems, including: <ul style="list-style-type: none"> <li>• Selecting and properly using required PPE</li> <li>• Protective clothing requirements when working with hot bitumen</li> <li>• Respiratory protection when working near hot bitumen vapors and fumes</li> </ul>
10	<input type="checkbox"/>	Describe the risks when using an open-flame torch or mopping hot bitumen around rooftop ventilation equipment (air intake/exhaust)
11	<input type="checkbox"/>	Coordinate with a site safety supervisor to ensure inspected and working fire extinguishers are available
12	<input type="checkbox"/>	Follow the best safety practices established in the NRCA/MRCA CERTA program when using open-flame roofing equipment
13	<input type="checkbox"/>	Explain the activities, best practices and frequency for conducting a fire watch when using an open-flame roofing torch

<b>Tools and Equipment: All Application Methods</b>		
14	<input type="checkbox"/>	<p>An installer should be able to:</p> <ul style="list-style-type: none"> <li>• Inspect tools and equipment condition before every use</li> <li>• Select the correct tool for a specific task</li> <li>• Use tools and equipment only for their intended purposes</li> <li>• Use and maintain tools and equipment per manufacturer instructions</li> <li>• Only operate powered tools and equipment that he or she has been trained to use</li> <li>• Clean tools and equipment after each use</li> </ul>
<b>Materials and Preparation: All Application Methods</b>		
15	<input type="checkbox"/>	<p>An installer should be able to:</p> <ul style="list-style-type: none"> <li>• Explain the general characteristics and differences between atactic polypropylene and styrene butadiene styrene membranes polymer-modified bitumen membranes</li> <li>• Identify various types of polymer-modified bitumen membranes, base sheets and interply sheets</li> </ul>
16	<input type="checkbox"/>	<p>An installer should be able to:</p> <ul style="list-style-type: none"> <li>• Load, stage and position all required materials, tools and equipment</li> <li>• Install cant strips as specified including the ability to miter inside and outside corners</li> <li>• Determine roll installation sequencing based on the project specification</li> <li>• Determine direction(s) to unroll membrane rolls</li> </ul>
<b>Sheet Layout and Attachment: All Application Methods</b>		
17	<input type="checkbox"/>	<p>An installer should be able to:</p> <ul style="list-style-type: none"> <li>• Move, set, align, unroll and adjust sheets as directed in sequenced locations with other crew members, maintaining specified side lap alignment and without wrinkles, buckles, fishmouths or voids</li> <li>• Unroll and cut membrane field plies or sheets to go around penetrations and maintain consistent side lap and exposure</li> <li>• Maintain positive water flow over all side laps and seams</li> <li>• Unroll and cut sheets around penetrations without damaging underlying sheets and maintain side lap alignment</li> <li>• Unroll and allow sheets to relax as specified; backroll and reset relaxed sheets and maintain positive water flow over laps</li> <li>• Stagger ply sheet end laps and side laps from base sheets to meet manufacturer's specifications and project requirements</li> <li>• Trim corners of underlying sheets at end laps and T-joints to meet manufacturer's requirements</li> <li>• Unroll, cut and allow sheets to relax to meet manufacturer's specifications</li> <li>• Backroll and reset relaxed sheets</li> </ul>

		<ul style="list-style-type: none"> <li>• Extend membrane field plies or sheets up onto vertical surface of the flashing substrate beyond the top of cant strips to meet manufacturer’s specifications and project requirements</li> <li>• Stagger sheet side laps from base sheets to meet manufacturer’s specifications and project requirements</li> <li>• Set, align and stagger sheet end laps at specified dimensions</li> <li>• Terminate field sheets at drain sumps to meet manufacturer’s specifications and project requirements</li> </ul>
18	<input type="checkbox"/>	<p>An installer should be able to:</p> <ul style="list-style-type: none"> <li>• Select required fasteners and attach membrane sheets in locations that meet manufacturer’s specifications and project requirements</li> <li>• Drive all fasteners straight and true without overdriving or underdriving</li> </ul>
<b>Sheet Layout and Attachment: Torch-applied Application Method</b>		
19	<input type="checkbox"/>	<p>An installer should be able to:</p> <ul style="list-style-type: none"> <li>• Uniformly apply heat to the sheet field and side lap while unrolling a membrane without over-heating and achieve full sheet adhesion</li> <li>• Use only a single-burner, low-output (105k Btu or less) “detail” torch or automated electric hot-air welder when sealing side and end lap seams</li> <li>• Embed granules at granule-to-granule seam and lap locations to meet manufacturer’s requirements</li> <li>• Roll membrane seams with a weighted roller to meet manufacturer’s specifications and job-site conditions</li> <li>• Achieve the manufacturer’s specified bitumen bleedout at all laps and seams</li> <li>• Apply and embed seam granules as required while bitumen is hot to achieve desired aesthetics</li> </ul>
<b>Sheet Layout and Attachment: Hot-applied Application Method</b>		
20	<input type="checkbox"/>	<p>An installer should be able to:</p> <ul style="list-style-type: none"> <li>• Maintain and monitor hot bitumen temperature at the point of application to meet manufacturer’s specifications and job-site conditions</li> <li>• Uniformly mop hot bitumen to adhere sheets to substrate using continuous mopping, spot mopping, or mop and flop methods to meet the manufacturer’s specifications and job-site conditions</li> <li>• Immediately unroll membrane sheets into hot bitumen without walking on installed membrane</li> <li>• Control hot bitumen bleedout at side and end laps to meet manufacturer’s specifications</li> <li>• Apply and embed seam granules while bitumen is hot as required to achieve desired aesthetics</li> </ul>

### Sheet Layout and Attachment: Cold-applied Application Method

21	□	<p>An installer should be able to:</p> <ul style="list-style-type: none"><li>• List the different types of primers and adhesives used in cold-applied systems</li><li>• Apply primers and cold adhesives to meet manufacturer's specifications including job-site conditions and rate(s) of coverage using a:<ul style="list-style-type: none"><li>- Hand or pneumatic-powered roller</li><li>- Squeegee</li><li>- Trowel</li><li>- Brush</li><li>- Pneumatic-powered sprayer</li></ul></li><li>• Fold, roll or set membrane sheets into cold adhesives without wrinkles, buckles or voids and maintain sheet alignment</li><li>• Achieve adhesive bleedout that meets manufacturer's specifications</li><li>• Broom or roll in sheets with uniform pressure to promote membrane adhesion and meet manufacturer's specifications</li><li>• Use only a single-burner, low-output (105k Btu or less) "detail" torch or electric hot air welder to seal side and end laps when heat-fused seams are specified</li><li>• Apply and embed seam granules before adhesives set to achieve desired aesthetics</li></ul>
----	---	---

### Sheet Layout and Attachment: Self-adhering Application Method

22	□	<p>An installer should be able to:</p> <ul style="list-style-type: none"><li>• Apply primers to substrate when required and meet manufacturer's specified rate of coverage</li><li>• Set, align, cut and dry-set membrane sheets in position before applying adhesives or removing release films</li><li>• Fold back dry-set membrane sheets and temporarily hold in place to facilitate release film removal</li><li>• Score, slit and fully remove release films from the folded-back sides of self-adhering sheets without damaging underlying sheet adhesive or reinforcement and without tearing the film</li><li>• Remove any remaining torn release film pieces from membrane adhesive before setting sheets in place</li><li>• Fold self-adhering sheets back into place without wrinkles, buckles or voids and maintain sheet and side lap alignments</li><li>• Immediately broom or roll the entire membrane surface to promote adhesion between membrane and substrate and meet manufacturer's specifications and job site conditions</li><li>• Remove side lap seam release film when present after membrane sheets are set in place</li><li>• Hand roll self-adhering side lap seams to meet manufacturer's specifications</li><li>• Apply cold adhesives at granule-to-granule seams and laps to meet manufacturer's specifications and job site conditions</li></ul>
----	---	---



<b>Membrane Seaming: All Application Methods</b>		
23	<input type="checkbox"/>	<p>An installer should be able to:</p> <ul style="list-style-type: none"> <li>• Trim corners of underlying membrane at end laps and T-joints to meet manufacturer’s specifications</li> <li>• Inspect completed side and end lap conditions as work progresses to verify weathertight integrity and immediately correct deficiencies following manufacturer’s recommendations</li> <li>• Use weighted seam rollers to promote adhesion between materials and to meet manufacturer’s specifications</li> </ul>
<b>Flashings and Accessories Installation: All Application Methods</b>		
24	<input type="checkbox"/>	<p>An installer should be able to:</p> <ul style="list-style-type: none"> <li>• Recognize where inadequate space is provided between roof drains, curbs, parapet walls and other penetrations and report to supervisors</li> <li>• Install backer plies and base flashing sheets at vertical walls and curbs</li> <li>• Fasten backer plies and base flashing sheets to substrates to meet manufacturer’s specifications and project requirements</li> <li>• Install all components of a liquid-applied membrane flashing when specified at vertical walls, curbs and penetrations to meet manufacturer’s specifications</li> <li>• Apply specified primers to embedded edge and metal flashing components; install backer and membrane stripping plies to meet manufacturer’s specifications</li> <li>• Install penetration pocket flashings including grout and pourable fillers to meet manufacturer’s recommendations</li> <li>• Install drain flashings including soft metal components, “target” membrane stripping sheets, clamping rings, bolts and drain accessories to meet manufacturer’s specifications and project requirements</li> </ul>
<b>Job-site Housekeeping: All Application Methods</b>		
25	<input type="checkbox"/>	<p>An installer should be able to:</p> <ul style="list-style-type: none"> <li>• Maintain a high level of cleanliness of substrates, membrane seams and finished surfaces</li> <li>• Continuously remove all construction waste and debris from all rooftop surfaces, curbs, HVAC equipment, skylights or other surfaces during and after daily work</li> <li>• Immediately clean spills of adhesives, solvents or chemicals from membrane surfaces</li> <li>• Remove any materials or debris that may block roof drainage</li> <li>• Ensure sharp-edged materials, fasteners, tools and equipment do not cut, puncture or scrape finished membrane surfaces</li> <li>• Ensure every completed roofing project is left clean and free of scrap, waste materials, loose fasteners or other debris</li> <li>• Protect all finished membrane surfaces from damage, dirt and other construction debris throughout a project’s duration</li> </ul>

		<ul style="list-style-type: none"><li>• Immediately mark and repair any physical damage that may occur to newly installed membranes following the manufacturer's recommendations</li></ul>
--	--	--