## **READINESS CHECKLIST**





## ROOF SYSTEM INSTALLER



**PROCertified**<sup>®</sup> THERMOPLASTIC SYSTEMS INSTALLER



NATIONAL ROOFING CONTRACTORS ASSOCIATION





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## ProCertified<sup>™</sup> Thermoplastic Systems Installer Readiness Checklist

This checklist is designed to help you determine your readiness to successfully complete the certification process and earn the NRCA ProCertified<sup>™</sup> Thermoplastic Systems Installer certification. The items below are what every candidate is expected to know and be able to do after completing 24 months of thermoplastic system field installation experience. You must pass two exams to earn your installer certification: an online knowledge exam and hands-on performance exam. The tests can include any or all the knowledge, skills and abilities represented on this list.

An online exam tutorial and practice exam are available at <u>www.nrca.net/procertification</u>.

ITEM	$\checkmark$	ΑCTIVITY			
	Safety				
1		<ul> <li>Actively participate in safety training and education programs and activities, such as:</li> <li>Job-site toolbox talks</li> <li>Sessions covering safety topics common to all roof system installations, such as: <ul> <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 (PPE)</li> <li>Electrical</li> <li>Material handling</li> <li>Tools and equipment</li> <li>Firs 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 thermoplastic system installations, such as: <ul> <li>PPE required when working with solvents, cleaners or adhesives</li> </ul> </li> </ul>			
		<ul> <li>Fire and explosion hazards</li> <li>Airborne contaminants; harmful vapors</li> </ul>			
2		<ul> <li>Explain elements of a company safety program, including:</li> <li>Major 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 in discussions about improving workplace safety with supervisors and co-workers</li> </ul>			
3		<ul> <li>Properly use and maintain fall-protection systems, including: <ul> <li>Personal fall-arrest system components, including:</li> <li>Don and adjust harness</li> <li>Connect lanyard, lifeline and anchor</li> <li>Locate and install anchor devices</li> </ul> </li> <li>Correct setup of warning lines as directed; demonstrate proper warning line use</li> <li>Correct setup and use of guardrails as directed</li> <li>Explain general characteristics and use of safety nets</li> </ul>			

4		Coloct inspect actum conjure and use ladders to access reafter work including.
4		Select, inspect, set up, secure and use ladders to access rooftop work, including:
		<ul> <li>Not carry anything that could cause a worker lose balance while climbing a ladder</li> </ul>
		<ul> <li>Maintain three points of contact while climbing a ladder</li> </ul>
5		Select, inspect, use and maintain PPE, including:
5		Head protection
		Eye protection
		<ul> <li>Hand and foot protection</li> </ul>
		<ul> <li>Protective clothing</li> </ul>
		-
		Hearing protection     Begnirstenum protection
6		Respiratory protection
0		Select, inspect, use and maintain electrical equipment, including:
		Power generators     Subarging conde
		Extension cords
		Ground fault circuit interrupters
		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:
		<ul> <li>Follow manufacturer's safety and usage instructions</li> </ul>
		Hand tools
		Power tools
		Power equipment
	L	Only uses tools or equipment that he or she was trained to operate
_		Sheet Layout
9		Move, set, align and unroll sheets as directed in sequenced locations with other crew
		members while maintaining sidelap alignment
10		Unroll and cut sheets around penetrations without damaging underlying sheets.
		Provide specified membrane extension up all vertical surfaces
11		Turn sheets up adjoining vertical surfaces and maintain specified extension; fold
		excess membrane tightly into inside corners to accommodate inside corner flashing
		best practices
12		Set, align and stagger sheet end laps at specified dimensions
		Attachment
13		Locate and drive fasteners and stress plates at specified locations using a hand-held
		and stand-up automated screw gun without overdriving, underdriving or stripping
14		Explain general characteristics and operate a heat-induction fastening systems
15		Apply sheet bonding adhesives at specified rates of coverage using a:
		<ul> <li>Hand or pneumatic-powered roller</li> </ul>
		Squeegee

		Brush
		Pneumatic-powered sprayer
16	Π	Apply sheet bonding adhesives at specified rates of coverage without contaminating
		seams, adjoining sheets or other building components
17		Score, slit and fully remove release films from self-adhering sheets without damaging
		underlying adhesive or reinforcement, tearing film or misaligning sheets
18		Fold sheets into adhesive and smooth in place as directed using brooms or weighted rollers and without air bubbles, wrinkles or creases
19		Spread aggregate ballast at the specified rate of coverage and as directed without damaging newly installed membrane
		Seaming
20		Clean sheet seams before welding
21		<ul> <li>Efficiently operate a hand-held and robotic hot-air welder, including:</li> <li>Adjust temperature setting</li> <li>Insert nozzle into seam</li> </ul>
		Pre-weld inner part of seam
		<ul> <li>Pace welder speed to meet environmental conditions</li> </ul>
		Complete welds to specified widths without fishmouths or wrinkles
		Use seam roller at correct angle
		Adjust tracking to maintain straight runs
		Maintain heat welding equipment, including cleaning nozzles
		Allow heating elements to cool before powering down equipment
		Consistently inspect seam with seam probe tool
22		<ul> <li>Ensure required fire extinguishers are readily available</li> <li>Complete roll end laps, including T-joint patches and edge sealants, as specified</li> </ul>
23		Flashings           Install membrane base flashings on all vertical walls and curbs, including use of pre-
		molded and field-fabricated outside or inside corners
24		Install membrane flashings with all embedded metal details and at raised perimeter edges
25		Install membrane flashings at all vent pipes or stacks using field-wrapped and pre- molded accessories
26		Install penetration pockets and fill with pourable sealant
27		Install membrane flashings at all roof drains
28		Install membrane base flashings at all through-wall and overflow scuppers
29		Install all types of membrane base flashing fasteners at correct spacings
30		Install most common types of sealants and caulks used in flashing detail applications
		Housekeeping
31		Maintain a high level of cleanliness of substrates, membrane seams and surfaces
32		Continuously remove all kinds of construction waste and debris from all rooftop surfaces, curbs, HVAC equipment, skylights or other surfaces during and after daily work

33	Immediately clean spills of adhesives, solvents or chemicals from membrane surfaces while wearing required PPE
34	Maintain roof drainage systems clear of any materials or debris that may block drainage
35	Wear and maintain clean footwear on all membrane surfaces
36	Do not cut, puncture or scrape finished membrane surfaces
37	Protect all finished membrane surfaces from damage, dirt and other construction debris throughout a project's duration
38	Mark and repair as directed any physical damage that may occur to newly installed membranes
39	Leave every completed roofing project clean and free of scrap, waste materials or other debris