

Henry® Pumadeq™ System Substrate Preparation Guidelines

Substrate preparation is essential to achieving a successful project and promoting adhesion of the Pumadeq system. Refer to product specific technical data sheet (TDS) and other published Pumadeq System Tech-Talk Bulletins to verify installation requirements. See product specific TDS for substrate qualification/preparation and resin application rates.

General substrate conditions

As a requirement for warranty issuance, it is the installing contractor's responsibility to verify substrate conditions are in accordance with Henry published literature.

1. Substrates must be clean, dry, free from laitance, ice, snow or frost, dust, dirt, oil, grease, curing compounds or any other foreign matter detrimental to the adhesion of the Pumadeq System.
2. Do not install Pumadeq System during, or prior to, inclement weather.
3. Substrate must be a minimum of 5° F above the dew point temperature, and rising.
4. Surfaces must be continuous and secured prior to Pumadeq System application.
5. Avoid direct contact of Pumadeq System with petroleum, grease, acid solvents and direct steam.
6. Remove dust, debris and other contaminants.
7. Ensure all components are in place including, but not limited to, copings, railings, flashings, electrical conduit, pipes, pedestals or curbs.
8. Refer to Henry Pumadeq System Substrate Primer Guidelines for substrate specific primer requirements.

Substrate requirements	
Structural concrete	
Cure time	28 days in accordance with ACI-308
Compression strength	2,500 psi
Substrate finish	<ol style="list-style-type: none"> 1. Concrete surface profiles - Refer to Pumadeq System Concrete Surface Profiles Tech-Talk Bulletin: <ol style="list-style-type: none"> a) Concrete Surface Profiles: CSP 3 – 5 b) Broom finish c) Wood float (groove depth may alter application rates) 2. Do not install Pumadeq System over substrates with concrete laitance <ol style="list-style-type: none"> a) Laitance removal required; shot blast or mechanically grind
Curing compounds	Recommend sodium silicate (Do not use wax, oil or resin-based compounds)
Moisture content	Refer to Pumadeq System Moisture Test Methods Tech-Talk Bulletin
Coating adhesion test	Refer to Pumadeq System Coating Adhesion Test Tech-Talk Bulletin
Bug holes/voids/cracks	Refer to Pumadeq System details
Lightweight Structural concrete with vented metal deck	
Cure time	60 days in accordance with ACI-308 (protect concrete from water ingress)
Compression strength	2,500 psi
Substrate finish	<ol style="list-style-type: none"> 1. Concrete surface profiles - Refer to Pumadeq System Concrete Surface Profiles Tech-Talk Bulletin: <ol style="list-style-type: none"> a) Concrete Surface Profiles: CSP 3 – 5 b) Broom finish c) Wood float (groove depth may alter application rates) 2. Do not install Pumadeq System over substrates with concrete laitance <ol style="list-style-type: none"> a) Laitance removal required; shot blast or mechanically grind

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Metal (steel, stainless steel, aluminum, galvanized steel and copper)	
Substrate finish	<ol style="list-style-type: none"> Society for Protective Coatings (SSPC) Surface Preparation Standards (SP): SSPC-SP3 <ol style="list-style-type: none"> Mechanically abrade substrate by power tool (angle grinder with cup wheel, grinding disc or wire cup brush attachment) to remove rust, paint, loose mill scale, galvanized finish and any foreign matter. Clean with Pumadeq Cleaning Fluid and a clean cloth until removal of all residue. Prime immediately after drying to avoid flash rusting. Abrade as high as Pumadeq System primer termination, to a neat, straight line and/or notch surface to provide a rust-stop. Remove sharp edges.
Peel adhesion test	Recommend a peel test to confirm adhesion.
PVC (rigid pipe)	
Substrate finish	Lightly sand to a rough surface and wipe clean with Pumadeq Cleaning Fluid and a clean cloth until removal of all residue.
Pipe/vent temperature	Install a cool sleeve over pipe where anticipated temperatures are greater than 150 °F.
Substrate attachment	Firmly fix into solid substrate.
Exterior grade sheathing (wood/plywood/cement board)	
Physical properties	<ol style="list-style-type: none"> Thickness: <ol style="list-style-type: none"> Wood/plywood: 5/8" thick minimum Cement board: 1/2" thick minimum Grade: <ol style="list-style-type: none"> Wood/plywood: APA - PS1 (do not use creosote treated materials) Cement board: Comply with ASTM C1325
Substrate finish	<ol style="list-style-type: none"> Wood/plywood: <ol style="list-style-type: none"> Lightly sand to remove splinters. Cement board: <ol style="list-style-type: none"> No preparation required.
Substrate attachment	<ol style="list-style-type: none"> Structurally support board edges Anticipated movement: no greater than 1/8" Install substrate with corrosion resistant fasteners at maximum 4" centers and in accordance with sheathing manufacturer requirements.
Substrate joints	<ol style="list-style-type: none"> Substrate gaps: 1/4" wide gap maximum. Height difference between adjoining boards: 1/2" maximum
Moisture content	Refer to Pumadeq System Moisture Test Methods Tech-Talk Bulletin
Masonry walls (CMU, brick, precast/cast-in-place concrete)	
Physical properties	<ol style="list-style-type: none"> CMU and brick: <ol style="list-style-type: none"> No voids, soft or scaling brick, faulty mortar joints or sharp protrusions. Strike masonry joints flush and allow mortar to cure prior to Pumadeq System installation. Precast/cast-in-place concrete: refer to structural concrete section of this tech-talk.
Precautions	Cap parapet/protect wall against weather conditions prior Pumadeq System installation.



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