



Raven Lining Systems
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AquataPoxy® 190

DTM Epoxy Primer/Topcoat

Technical Data Sheet

Selection & Specification Data

Description

AquataPoxy® 190 is a 2-part fast curing, NSF/ANSI 61 certified, direct-to-metal, anti-corrosive epoxy coating that can be used as a blast-holding, direct-to-metal primer or as a standalone finish coat. AquataPoxy® 190 features a 21 day re-coat window for top coat application. AquataPoxy® 190 is a standalone coating or an excellent surface tolerant primer for several different topcoats including epoxy, polyurethane, polyurea, and other UV stable topcoats.

Color & Stability (Limitations)

Standard Color is Iron Oxide Red.

Raven 190 is an aromatic epoxy. While the physical properties may not be affected, the epoxy will fade or chalk with exposure to UV light or mercury vapor light. Each individual user should check the product compatibility with their own application requirements prior to use.

Theoretical Coverage Rates

Theoretical coverage is 1288 sq. ft. per gallon at 1 mil dft. Actual surface coverage will depend on the substrate porosity and roughness of the substrate.

Recommended Film Thickness

Primer for Steel	2-5 mils DFT
DTM Finish on Steel	8-10 mils DFT per Coat

Physical Properties (Typical)

Description	Method	Result
Adhesion to Steel	ASTM D4541	>2000 psi
Adhesion to Concrete	ASTM D7234	Substrate Failure
Abrasion Resistance, Taber (CS-17 Wheels, 1kg, 1000 revs)	ASTM D4060	15 mg lost
Salt Fog Exposure	ASTM B117 2760 hours	S. Creep = 9 S. Blister = 10
Prohesion	ASTM G85 2760 hours	S. Creep = 9 S. Blister = 2M
VOC	As supplied 10% Acetone	166 g/L 166 g/L
Volume Solids	As supplied	88%

The value ranges stated in this Technical Data Sheet are based on system processing under controlled laboratory conditions. Equipment configuration and/or field application conditions may produce variances in the final system values.

CERTIFICATIONS

Potable Water: AquataPoxy 190 is certified to the requirements of ANSI/NSF 61 - Drinking Water System Components.

Tank Size	>=5 gallons
Pipe Diameter	>=4 inches
Number of Coats	1
Total DFT	10
Maximum Thinner	6%
Cure to Service	3 Days @ 72°F



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Surface Preparation	
<p>General</p> <p>Prior to coating, the substrate must be prepared in a manner that provides a uniform, clean, sound, neutralized surface suitable for the specified coating. The substrate must be free of all contaminants, such as oil, grease, rust, scale or deposits. In general, coating performance is proportional to the degree of surface preparation.</p> <p>Steel, Immersion Service</p> <p>Visible deposits of oil, grease, or other contaminants shall be removed according to SSPC-SP 1 Solvent Cleaning followed by SSPC-SP10/NACE No. 2 Near-White Metal Blast Cleaning, resulting in a sharp angular anchor profile of 2.5-4.0 mils.</p>	<p>Steel, Atmospheric/Non-Immersion Service</p> <p>Visible deposits of oil, grease, or other contaminants shall be removed according to SSPC-SP 1 followed by SSPC-SP6/NACE No. 3 Commercial Blast Cleaning, resulting in a sharp angular anchor profile of 2.5-4.0 mils.</p> <p>Ductile Iron Pipe, Atmospheric and Immersion Service</p> <p>All oils, small deposits of asphalt paint and grease shall be removed by solvent cleaning (see NAPF 500-03-01). Abrasive blast to meet NAPF 500-03-04.</p> <p>Do not use this primer if immersion temperatures will exceed 140°F.</p>
Thinning Instructions and Pot Life	
<p>Thinning</p> <p>Do not reduce more than 10% with Raven recommended reducer. Do not reduce with MEK.</p>	<p>Pot Life</p> <p>The pot life is 45 minutes at 72°F. Longer pot life is possible by mixing smaller amounts and/or cooling down the part A & B before mixing.</p>
Application Equipment & Conditions	
<p>Application Equipment</p> <p>General: This high solids coating may require adjustments in spray techniques.</p> <p>Conventional: Pressure pot equipped with dual regulators. 3/8 I.D. minimum material hose. 0.070" I.D. fluid tip and appropriate air cap</p> <p>Airless Pump Ratio: 23:1 (Min.)</p> <p>GPM Output: 1.0 (Min.)</p> <p>Tip Size: .515" to .525"</p> <p>Output PSI: 500-2000</p> <p>Filter Size: 60 Mesh Teflon packing are recommended. Use 45:1 pump ratio for elevated applications and 1/2" I.D. hose for lengths greater than 60'.</p>	<p>Brush or Roller</p> <p>Multiple coats may be required to obtain desired appearance or recommended dry film thickness. Avoid excessive re-brushing over-rolling.</p> <p>Use a medium bristle brush. Short-nap synthetic cover with phenolic core is recommended.</p> <p>Application Conditions</p> <p>Temperature- 40°F Minimum, 120°F Maximum (Air and Surface). At least 5°F above dew point. Relative Humidity - 85% maximum</p>



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Curing & Re-Coat Window	
Cure Time The set time varies with substrate temperature and application thickness. Generally, the coating will be tack-free in ~3 hours at 72°F (22°C) and dry-hard in about 8 hours. Cure to Service (Immersion) 3 Days at 72°F	Recoat Time This product may be recoated in 3 hours or as soon as it becomes tacky but does not transfer to the finger. When applying multiple coats, do not allow more than 21 days at 72°F (22°C) substrate temperature to pass between coats. Higher temperatures will shorten this window. Before recoating; visually inspect, clean and dry surface thoroughly to remove all contamination, including amine blush or condensation. If the recoat time is missed, abrade and clean surfaces prior to recoating.
Packaging, Handling, & Storage	
Packaging: Available in 5-gallon kits and 1.25 gallon kits. Kits are supplied in the correct proportions of A & B; these two components must be mixed together before use. Raven 190 is available through Raven Certified Applicators or Distributors .	Shelf Life: The product can be stored for one year in factory delivered, unopened containers. Keep away from extreme heat, freezing, and moisture. Storage Temperature & Humidity Store in a sheltered area between 50°F (10°C) and 100°F (37°C).
Cleanup & Safety	
Cleanup Cured product may be disposed of without restriction. The un-cured portions should be mixed together and disposed of in a normal manner. Preferred cleaning solvents are MEK, Xylene, or Acetone. "Drip free" containers should be disposed of according to state, local, and federal laws.	Safety SDS's are available on the website, (www.ravenlining.com) or upon request. Consult the Safety Data Sheet for this product concerning health and safety information before using. Strictly follow all notices on the Safety Data Sheet and container label. If you do not fully understand the notices and procedures provided on the SDS or if you cannot strictly comply with them, do not use this product. Actual safety measures are dependent on application methods and work environment. Keep uncured product away from children at all times.



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Warranty

Limited Warranty. Company warrants its goods to be free of manufacturing defects. Goods manufactured by Company will comply with all applicable federal, state and local laws and regulations. Company makes no warranty as to any parts or equipment manufactured by others. Customer shall look solely and only to the manufacturer of such parts or equipment with respect to any warranty claims. Company hereby assigns to Customer the original manufacturer's warranties to all such equipment and parts, to the full extent permitted. THE AFORESAID IS THE EXCLUSIVE WARRANTY AND IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED. SPECIFICALLY, THERE ARE NO WARRANTIES OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE.

Limitation of Liability. COMPANY'S LIABILITY FOR DEFECTIVE OR NON-CONFORMING GOODS SHALL BE LIMITED TO, AND SHALL IN NO EVENT EXCEED, THE AMOUNT PAID BY CUSTOMER FOR SUCH DEFECTIVE OR NON-CONFORMING GOODS. UNDER NO CIRCUMSTANCES SHALL COMPANY BE LIABLE FOR ANY SPECIAL, PUNITIVE, INCIDENTAL OR CONSEQUENTIAL DAMAGES OR FOR LOST PROFITS. In no event may any claim by Customer arising from or relating to any sale of any goods or services referenced herein be brought more than one year after the date of delivery of such Goods.