



686 S. Adams St.
 Kansas City, KS. 66105
 (913) 321-9000

Raven® 175

Penetrating Primer

Technical Data Sheet

Selection & Specification Data

Description

Raven 175 is a 100% solids, No VOC's, low odor, concrete sealer/primer designed to minimize concrete outgassing and moisture vapor transmission. Raven 175 is suitable for use as a primer in confined spaces, underground or above ground concrete coating applications. Raven 175 can be used on damp concrete surfaces with excellent results.

Color and Limitations

Color, Off-White Tint. When mixed the product is a milky color which dries to a transparent film.

Theoretical Coverage Rates

When applied at 50% solids (recommended), coverage is 100 square feet per gallon at 8 mils wet film thickness. Actual surface coverage will depend on substrate porosity and roughness. Good painting practices suggest application of two coats for quality assurance. Generally, a wet film thickness gauge may be used to determine actual coating coverage, however, this material is a penetrating primer and will be rapidly absorbed into the substrate making WFT measurement inaccurate.

Coverage and Film Thickness

Dry film thickness (DFT) or wet film thickness (WFT) may be calculated with this formula: $DFT = WFT \times \% \text{ solids} / 100$. A maximum of 8 mils per coat is recommended to prevent sagging. Recommended thickness, when used as a primer or sealant, is one or two coats at 8 mils each to saturate the surface of the substrate.

Physical Properties (Typical)

Test	Method	Result
Adhesion to Concrete, Dry	ASTM D7234	Substrate Failure
Adhesion to Concrete, Damp	ASTM D7234	Substrate Failure
Solids Content	By Volume	100 %
VOC Value (as sold)	Grams/Liter lbs./gal	0.0 g/L

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.

Performance Table

Volume Ratio	A Resin: B Hardener	1.51 to 1
Weight ratio	A Resin: B Hardener	100 : 58
Pot Life, minutes	72°F	52 minutes
Set to Touch, hours	72°F	6 - 8 hours
Recoat Window	Earliest @ 72°F	6 - 8 hours
Recoat Window	Maximum @ 72°F	7 days

Surface Preparation

General

Before 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.

Concrete and Masonry

Surfaces must be sound and contaminant-free with a surface profile equivalent to a CSP3 to CSP5 in accordance with ICRI Technical Guideline No. 03732. This can generally be achieved by abrasive blasting, shot blasting, high pressure water cleaning, water jetting, or a combination of methods.



Raven® 175

Penetrating Primer

Technical Data Sheet

Mixing	Application Conditions
<p>Mix only a quantity of material that can be applied within 60 minutes by the number of persons applying the material (typically 2 gallons per person maximum). Raven 175 is sold in pre-measured containers at a ratio of 1.54:1 (A:B). Mix Part A container prior to pouring or measuring components by volume or weight into a clean disposable pail. Completely mix combined A & B for a minimum of one minute with a Hanson plunge mixer or similar mixing device. To reduce, mix the Raven 175 A and B components and then add acetone to the previously mixed Raven 175. Mix with a jiffy mixer for one minute or until homogenous. It is recommended to scrape the sides and bottom, to obtain a thorough mix before application. Avoid high-speed mixing which may introduce air into the coating.</p>	<p>Temperature</p> <p>32°F Minimum, 140°F Maximum (Air and Surface). At least 5°F above dew point.</p> <p>Material should be kept at 60°F or higher for optimal performance.</p> <p>Relative Humidity- 85% maximum.</p>
Application Equipment	
<p>Spray</p> <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:</p> <p>GPM Output: 0.5 (Min.)</p> <p>Tip Size: .515" to .525"</p> <p>Output PSI: 1000-2000</p> <p>Filter Size: 60 Mesh</p>	<p>Note: Teflon packing are recommended. Use 45:1 pump ratio for elevated applications and ½" I.D. hose lengths greater than 60'. It is recommended to "back roll" the Raven 175 after spray application to maximize its effectiveness.</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>Pot Life (As Sold): 52 minutes at 72°F</p> <p>Pot Life (Reduced): 120 minutes at 72°F</p>



Raven® 175

Penetrating Primer

Technical Data Sheet

Cleanup & Safety	
<p>Cleanup</p> <p>Cured product may be disposed of without restriction. The un-cured portions should be mixed together and disposed of in a normal manner. “Drip free” containers should be disposed of according to state, local, and federal laws.</p>	<p>Safety</p> <p>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.</p>
Packaging, Handling, & Storage	
<p>Packaging</p> <p>Raven 175 is available in 2.5 gallon kits.</p>	<p>Shelf Life</p> <p>Product shelf life is 1-year from purchase date in original unopened containers.</p> <p>Storage Temperature & Humidity</p> <p>Store in a sheltered area between 60°F (16°C) and 80°F (27°C).</p>
Warranty	
<p>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.</p> <p>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.</p>	