



Raven 580

Technical Data Sheet

MANUFACTURER

Raven Lining Systems, Inc.
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DESCRIPTION

Raven® 580 is a 100% solids “pure” polyurea adhesive designed as a patch kit for polyurea coatings. Raven 580 can be used in high humidity conditions with minimal bubbling and loss of adhesion. Raven 580 adheres very well to previously sprayed and properly prepared polyurea. In some cases, it may be necessary to use Raven 561 primer prior to use of Raven 580.

PHYSICAL PROPERTIES (Typical)

| <u>Test Performed, Units</u> | <u>Method</u> | <u>Result</u> |
|------------------------------|---------------------------|---------------|
| Tensile Strength | ASTM D412/638 | 5500 psi |
| Tensile Elongation | ASTM D412/638 | 440 % |
| 100% Modulus | ASTM D412/638 | 1,200 psi |
| 300% Modulus | ASTM D412/638 | 2,800 psi |
| Taber Abrasion, CS-17 Wheel | ASTM D4060 | 15.6 |
| Die “C” Tear | ASTM D624 | 490 pli |
| Volume Ratio | | 1A:3B |
| Hardness, Shore A | ASTM D2240 | 99 |
| Hardness, Shore D | ASTM D2240 | 55±5 |
| Viscosity A-Side (75°F) | Brookfield | 200 cps |
| Viscosity B-Side (75°F) | Brookfield | 1,200 cps |
| Recommended PH Range | Application not to exceed | 3 to 12 |
| <u>Processing Properties</u> | <u>Units</u> | <u>Result</u> |
| Recoat | Hours | 6 |
| Gel Time | Minutes | 10 |
| Tack Free Time | Minutes | 90 - 120 |

TYPICAL USES

- Secondary Containment Lining Patch Kit
- Steel Corrosion Protection Patch Kit
- Geotextile Fabric Lining Patch Kit
- Salt Water Corrosion Protection for Steel or Concrete
- Concrete Waterproofing Patch Kit
- Industrial Facilities Patch Kit

TYPICAL PROPERTIES

Test Method ASTM D 3912 M 24 Hour Spot

| <u>Chemical</u> | <u>Result (25°C)</u> |
|------------------------------|----------------------|
| Acetone | C |
| Brake Fluid (DOT3) | RC |
| Clorox® (10%) Water | R |
| Diesel Fuel | R |
| Gasoline | R |
| Hydraulic Fluid (oil) | RC |
| Methyl Ethyl Ketone (M.E.K.) | N |
| Motor Oil | R |
| Muriatic Acid (31.45%) | R |
| NaCl/Water (10%) | R |
| Potassium Hydroxide (10%) | R |
| Sodium Hydroxide (10%) | R |
| Sodium Bicarbonate | R |
| Sugar/Water (10%) | R |
| Sulfuric Acid (10%) | R, Dis |
| Sulfuric Acid (<22%) | R |
| Sodium Hydroxide w/w (30%) | R |
| Transmission Fluid | R |
| Vinegar (5%)/Water | R |
| Water | R |
| Xylene | RC |
| UV Light (Sunlight) | Dis |

R = Recommend = Little or no Visible Damage

RC = Recommend Conditional = Some Effect-Swelling

C = Conditional = Poss. Cracking - Wash Down Within 1 Hour

NR = Not Recommended

Dis = Discoloration Only

COLORS

Industrial Tan, Shale Green and Several others on request

APPLICATION

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.

Raven 580

Steel surfaces may require “Solvent Cleaning” (SSPC-SP 1) to remove oil, grease and other soluble contaminants. Chemical contaminants may be removed according to SSPC-SP 12/ NACE No. 5. Identification of the contaminants along with their concentrations may be obtained from laboratory and field tests as described in SSPC-TU 4 “Field Methods for Retrieval and Analysis of Soluble Salts on Substrates”. Surfaces to be coated should then be prepared according to SSPC-SP 5/NACE No.1 “White Blast Cleaning” for immersion service or SSPC- SP 10/NACE No. 2 “Near White Blast Cleaning” for all other service. In certain situations, an alternate procedure may be to use high (>5,000 psi) or ultrahigh (>10,000 psi) pressure water cleaning or water cleaning with sand injection. The resulting anchor profile shall be 2.5-5.0 mils and be relative to the coating thickness specified.

Concrete and Masonry surfaces must be sound and contaminant-free with a surface profile equivalent to a minimum CSP3 to CSP5 in accordance with ICRI Technical Guideline No. 310.2R-2013. This can generally be achieved by abrasive blasting, shot blasting, high pressure water cleaning, water jet- ting, or a combination of methods.

CLEAN-UP/DISPOSAL

Cured product may be disposed of without restriction. The uncured isocyanate and resin 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.

LIMITATIONS

Raven 580 is an aromatic polyurea. While the physical properties may not be affected, the elastomer could fade with exposure to UV light or mercury vapor light. If color stability is mandatory, contact the manufacturer for recommendations. The chemical resistance chart should be consulted prior to application. Each individual user should check the product compatibility with their own application requirements prior to use.

STORAGE

The product can be stored for six months in factory delivered, unopened drums. Keep away from extreme heat, freezing, and moisture. Proper storage temperature is between 60°F and 80°F. Ideal material storage temperature is between 60°F and 95°F. It is recommended to warm the materials to 80°F in the drum prior to spraying.

AVAILABLE PACKAGES

Raven 580 is available in pint kits

SAFETY

SDS's are available on the website (www.ravenlining.com) or upon request. All personnel should read and understand the safety recommendations as set forth in the SDS. Keep uncured product away from children at all times.

Warranty and Disclaimer: Raven Lining Systems, Inc. (“Raven”) warrants its products to be free of manufacturing defects in accord with applicable Raven quality control procedures and that they meet the formulation standards of Raven. To the best of our knowledge the technical data contained herein is true and accurate on the date of publication and is subject to change without prior notice. If, within one year from purchase, any product is proven defective, Raven, at its sole option, will either replace the defective product or refund the purchase price. This warranty is void if the product is used contrary to Raven’s written directions.

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