



SPI Performance Coatings  
Mopes Ln, Purton, Wiltshire  
SN5 4HG

# Raven® 580

Technical Data Sheet

## Selection and Specification Data

### 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 prior to use of Raven 580.

### Physical Properties (typical)

Test	Method	Result
Tensile Strength	ASTM D412/638	5,500 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 (23.9°C)	Brookfield	200 CPS
Viscosity B-Side (23.9°C)	Brookfield	1,200 CPS
Recommend pH Range	Application not to exceed	3 to 12
Processing Properties	Units	Results
Recoat	Hours	6
Gel Time	Minutes	10
Tack Free Time	Minutes	90-120

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.

### Colours

Industrial tan, Shale Green and several others on request.

### Typical Properties

Test Method ASTM D3912 M 24 Spot

Chemical	Result (25°C)
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

### Typical Uses

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



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### 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.

**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 jetting, or a combination of methods.

### Available Packages

Raven 580 is available in pints kits

### 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.

### Packaging

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 15.6°C and 26.7°C. Ideal material storage temperature is between 15.6°C and 35°C. It is recommended to warm the materials to 26.7°C in the drum prior to spraying.

### Shelf Life and Storage

The product can be stored for six months in factory delivered, unopened cartridges. Keep away from extreme heat, freezing, and moisture. Proper storage temperature is between 15.5°C and 35°C.

### Safety

SDS's are available on the website ([www.spiperformancecoatings.com](http://www.spiperformancecoatings.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.