Raven 510
Technical Data Sheet

MANUFACTURER

Raven Lining Systems, Inc.
13105 East 61st Street, Suite A
Broken Arrow, OK 74012
Phone: (918) 615-0020

DESCRIPTION

Raven® 510 is a 100% solids "pure" polyurea coating designed for a variety of applications. Raven 510 can be used in high humidity conditions with minimal bubbling and loss of adhesion. Raven 510 adheres well to properly prepared concrete, steel, aluminum, wood, composites and many other substrates. Contact Raven for primer recommendations for various substrates.

PHYSICAL PROPERTIES (Typical)

Test Performed, Units	Method	Result
TENSILE STRENGTH, PSI	ASTM D412/638	3000
ELONGATION, %	ASTM D412/638	400
100% MODULUS, PSI	ASTM D412/638	1400
300% MODULUS, PSI	ASTM D412/638	2150
TABER ABRASION, CS17 Wheel	ASTM D4060	15.6
DIE "C" TEAR , PLI	ASTM D624	492
NSF/ANSI- 61 Certified	ASTM D624	No
HARDNESS, SHORE A	ASTM D2240	98
HARDNESS, SHORE D	ASTM D2240	50 ± 5
VISCOSITY A-SIDE (75ºF), CPS	Brookfield	350 - 550
VISCOSITY B-SIDE (75ºF), CPS	Brookfield	400 - 600
RECOMMENDED PH RANGE	Application not to exceed	3 to 12
MOISTURE VAPOR TRAN.	ASTM D1653-WVP	1.27
PROCESSING PROPERTIES	**Units**	**Result**
GEL TIME	Seconds	5
TACK FREE TIME	Seconds	12
RECOAT WINDOW	Hrs	0 to 12

TYPICAL USES

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

COLOR

Standard Colors:
- Medium Gray (In-Stock), Several others on request

APPLICATION

Raven 510 has been specifically developed for use with high-pressure plural component spraying equipment capable of maintaing 2000 psi and 150°F temperatures at all times. Heated hose is required. The manufacturer recommends Graco equipment such as a Graco HXP 2. Contact the manufacturer for details on material delivery systems.

APPLICATION RECOMMENDATIONS

Raven 510 adheres well to properly prepared substrates such as steel, aluminum, wood, concrete. Some substrates exhibit much better long term performance if a primer is used prior to application. For example, a steel substrate coated with Raven 510 performs much better in corrosion conditions testing if the steel is treated prior to coating with the proper preparation method (i.e. shot blasting), proper primer (i.e. that includes rust resistant additives), and then top coated with Raven 510. Please contact the manufacturer for specific primer recommendation for particular substrates and conditions.

CLEAN-UP

Cured product may be disposed of without restriction. The un-cured 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. recommendations as set forth in the MSDS. Keep uncured product away from children at all times.

LIMITATIONS

Raven 510 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 compatability 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 60ºF and 80ºF. Ideal material storage temperature is between is between 60°F and 95°F. It is recommended to warm the materials to 80°F in the drumprior to spraying.

SHIPPING

Raven 510 ships un-regulated and is "Class 55" freight

Raven 510

CHEMICAL RESISTANCE

Test Method: ASTM D 3912 M 24 Hour Spot

Chemical	Result
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

AVAILABLE PACKAGES

Raven 510 is available in 5 gallon pails, 55 gallon drums and 275 gallon totes.

SAFETY

MSDS'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 MSDS. 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.

THE AFORESAID IS THE EXCLUSIVE WARRANTY AND IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED. THERE IS NO WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE. UNDER NO CIRCUMSTANCES SHALL RLS SOLUTIONS INC. BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES OR FOR LOST PROFITS. NO ACTION AGAINST RAVEN MAY BE COMMENCED MORE THAN ONE YEAR AFTER THE CLAIM ARISES.

© 2014 Raven Lining Systems, Inc.