Raven 470

DESCRIPTION
Raven® 470 ultra high build epoxy coating is a solvent-free, 100% solids, ambient cured novolac formulation. 470 provides excellent protection against chlorinated solvents, temperatures up to 400°F and exhibits high physical strengths and broad range chemical resistance. 470 has superior adhesion strengths to concrete, steel, masonry, fiberglass and other surfaces.

TYPICAL USES
Surfaces where protection from extremely corrosive environments and chemicals is desired and when rehabilitation of existing structures requires enhancement of the structural integrity and/or areas exposed to moderate to severe solvents, acids and caustics where a force-cure for the coating is not feasible, including:

- Troughs
- Sumps and wet wells
- Tanks
- Pipelines
- Secondary containment
- Floors and walls
- General maintenance

COLOR
Blue is the standard product color. Limited special colors are available. Contact RLS for information.

SOLIDS BY VOLUME
100% solids by volume.
Volatile Organic Compounds: 0.0 lbs/gallon

FILM THICKNESS
Raven 470 is a 100% solids epoxy with zero shrinkage. Therefore, actual wet film thickness and final dry film thickness are the same (i.e. 10 mils WFT = 10 mils DFT). **A maximum of 125 mils per coat is recommended.** Generally, two application coats are recommended for quality assurance in coverage. A wet film thickness gauge can be used to determine coating coverage.

THEORETICAL COVERAGE
40 sq. ft. per gallon at 40 mils thickness. Actual surface coverage will depend on surface irregularities. Trials are recommended to determine the actual coverage required to yield a desired film thickness for each individual type of installation. Recommended thickness will vary from 40-125 mils depending on the installation. Additional information is available by contacting RLS.

APPLICATION METHOD
Brush, roller, heated plural component airless or air-assisted spray. For specific information on application spray system design, approved systems and Certified Applicators contact RLS.

THINNING
Do not thin with solvents; pinholing and loss of adhesion can result. If lower viscosity is desired, drum heaters and inline heaters can be used for larger quantities and on specialized spray equipment. Material components should not be heated beyond manufacturer's suggested limits. Contact RLS for detailed information.

CLEAN-UP
To clean tools, use acetone, xylene or MEK. Protect skin from exposure, if exposed to 470, immediately wash thoroughly with soap and water. Refer to the Material Safety Data Sheet for additional information on health and safety.

POT LIFE
7 minutes for 1 gallon at 75°F.
2 minutes for 2 gallons at 75°F.

The amount of pot life and working life will vary depending on the quantity and temperature of epoxy mixed, ambient temperature and the container in which the mixed material is held. Contact RLS for additional information.

CURE AND RECOAT TIME
Initial set generally occurs within 6 hours at 70°F. Curing continues for several days, even underwater. When applying multiple coats, no more than 12 hours at 70°F should be permitted to pass between coats. Environmental conditions may shorten this window. Protect surfaces from contamination of any type between coats. Before recoating, inspect, dry and clean surface thoroughly to remove all contaminants, including amine blush and condensation. If the recoat window is missed, clean and abrade surfaces prior to topcoating. For additional information contact RLS.

SURFACE TEMPERATURE
Minimum recommended: 40°F.
Maximum recommended: 110°F.

SURFACE PREPARATION

Surfaces to receive coating must be cleaned of all oil, grease, rust, scale, deposits and other contaminants. Contact RLS for additional recommendations.

STEEL surfaces may require "Solvent Cleaning" (SSPC-SP1) to remove oil, grease and other soluble contaminants. Surfaces to be coated should then be prepared according to SSPC-SP10 or NACE No. 2: "Near White Blast Cleaning". In certain situations, an alternate procedure may be to use high (>5,000 psi) or ultra-high (>10,000 psi) pressure water cleaning or water with sand injection and an approved rust inhibitor. The anchor profile for surface preparation must be a minimum of 2 mils.

CONCRETE AND MASONRY surfaces can generally be prepared by high pressure water cleaning, water jetting, abrasive blasting, shotblasting or a combination of methods. A penetrating primer such as low viscosity Raven 110 or 120 may be recommended.

FIBERGLASS surfaces should be rinsed and neutralized, scarified and cleaned with water or an emulsion of solvent and water to remove remaining dust and loose particles. Allow the surface to dry thoroughly.

AVAILABLE PACKAGES

5 gallon pails (20 gallon kit), 30 gallon drums (120 gallon kit), 55 gallon drums (220 gallon kit). Raven 470 is available through Certified Applicators.

COMPONENTS AND MIX RATIO

Part A, Resin. Part B, Hardener. 3:1 by volume.

VISCOSITY

Part A, 28,000 cps, Brookfield RVF
Part B, 17,500 cps, Brookfield RVF

SHELF LIFE AND STORAGE

Shelf Life: 1 year in sealed, unmixed containers at room temperature. Store in a sheltered area between 60°F and 80°F (15°C and 27°C).

SAFETY

Consult the Material Safety Data Sheet for this product concerning health and safety information before using. Strictly follow all notices on the Material Safety Data Sheet and container label. If you do not fully understand the notices and procedures provided or if you cannot strictly comply with them, do not use this product. Actual safety measures are dependent on application methods and work environment. Contact RLS to obtain a copy of the Material Safety Data Sheet at 800-324-2810.

PERFORMANCE TESTING

DESCRIPTION	METHOD	RESULTS
Flexural Strength	ASTM D790	8,200 psi
Compressive Strength	ASTM D695	16,500 psi
Tensile Strength	ASTM D638	6,500 psi
Tensile Ultimate Elongation	ASTM D638	1.5%
Hardness, Shore D	ASTM D2240	85
Adhesion	ASTM D4541, Steel (SSPC-10)	1,360 psi
	Concrete	Substrate Failure
Temperature Resistance		400° F, Dependent on Chemical Exposure

www.rls-solutions.com
800-324-2810 • Email: contact@rls-solutions.com