



RAP-1567 SP AND RAP-1567 SP-HX SILICONE ALIPHATIC POLYUREA

CODE: *RAP-1567 SP and RAP-1567 SP-HX*

PRODUCT DESCRIPTION:

RAP-1567 SP and RAP-1567 SP-HX are two component 100% solids, no VOC's, silicone aliphatic polyureas "Powered by ReactAmine® Technology" that was developed for UV stable (colorfast) polyurea applications. This new generation polyurea displays fast cure times and excellent adhesion characteristics. *RAP-1567 SP and RAP-1567 SP-HX* are designed to be quick gelling (30 minutes) in order to optimize leveling and wetting properties. *RAP-1567 SP and RAP-1567 SP-HX* can be spray applied at temperatures ranging from 20°F to 120°F. This 100% polyurea elastomer displays excellent chemical resistance, water insensitivity and UV resistance (in any color) at a wide range of temperatures. *RAP-1567 SP and RAP-1567 SP-HX* will provide a smooth glossy finish when fully cured. *RAP-1567 SP and RAP-1567 SP-HX* emits virtually no odors and can be applied indoors without any VOC's. *RAP-1567 SP and RAP-1567 SP-HX* both meet to USDA and FDA specifications. *RAP-1567 SP and RAP-1567 SP-HX* can be rolled, brushed, or spray applied thru airless or plural equipment.

NOTE: RAP 1567 SP-HX is a harder coating than the RAP 1567 SP.

AVAILABLE COLORS:

- All primary colors
- Custom tints

TYPICAL PHYSICAL PROPERTIES:

		<u>HX-SP</u>	<u>SP</u>
Tensile Strength (PSI)	ASTM D412	4800	2200
Elongation (%)	ASTM D412	100	400
Tear Strength (PLI)	ASTM2240	420	310
Hardness, Shore D	ASTMD2240	65	45
Flexibility, 1/8" Mandrel	ASTMD1737	Pass	Pass
Flashpoint (°F)	ASTM Pensky-Martin	>200	>200
Taber Abrasion (mg loss)	ASTM D4060	40	40
CS17 – Wheel	1 kg per 1000 revs		
Viscosity B-side (75°F)	CPS	550	550
Viscosity A-side (75°F)	CPS	1000	200

Typical Processing Properties:

Pot Life (75°F)	Minutes	40	40
Tack Free Time (75°F)	minutes	30	30
Volume Ratio A / B	PBV	3/4	1/1

PRIMARY APPLICATIONS:

- BRIDGE COATINGS
- AIRCRAFT HANGAR FLOORS
- LOW TEMPERATURE EQUIPMENT
- MAINTENANCE FACILITIES
- FLOORS REQUIRING UV STABILITY
- UV-STABLE TOP COAT
- INDUSTRIAL SHOP FLOORS
- NON-CONDUCTIVE FLOORING
- ROOF COATINGS



INSTALLATION RECOMMENDATIONS:

RAP-1567 SP and RAP-1567 SP-HX adheres well to many substrates when properly primed including concrete, steel and wood. Substrate surfaces should be free of loose particles, rusts, voids and spills. It is recommended that this product be applied in a multi-directional (north, south, east and west) motion to help ensure the proper coating thickness. Chloride, moisture and pH levels should be checked prior to application. Always agitate the resin side before using.

CONCRETE:

Old Concrete – Sandblasting, shot blasting or water blasting is highly recommended to remove surface contaminants. Any oils or fats must be removed prior to product application. Acid etching may be required (followed by a thorough rinsing) to open the pores of the concrete to accept a primer coat. Do not apply *RAP-1567 SP or RAP-1567 SP-HX* to wet substrates. Contact the manufacturer for primer recommendations in wet applications. In almost every application, a primer is recommended prior to use of the *RAP-1567 SP or RAP-1567 SP-HX*. This will help prevent pinholing, and in some cases, help fill voids and create a smoother surface. A 10-mil coating of *RAP-1567 SP and RAP-1567 SP-HX* are generally recommended for chemical resistance and abrasion issues.

New Concrete – The concrete should be allowed to cure for a minimum of 30 days. Shot blasting, sandblasting or acid etching (15% muriatic acid / 85% H₂O) is required to remove the surface lattice that appeared during the curing process. A primer should be applied to reduce outgassing. Contact the manufacturer for specific recommendations. A 10-40 mil coat is generally recommended depending on chemical resistance and abrasion issues.

CARBON STEEL:

The steel must be prepared to a “near white metal,” equivalent to SSPC 10 or NACE 2. For immersion service, a 3-mil blast profile is recommended. A 2-mil blast profile is generally accepted. A 10 – 20 mil coat of *RAP-1567 SP and RAP-1567 SP-HX* are generally recommended based on chemical resistance issues.

SUBSTRATE REPAIRS:

All spalls and cracks should be repaired to ICRI standards. Expansion joints should be honored. Horizontal control joints can be filled with **Joint Seal (JS)** prior to the application of *RAP-1567 SP or RAP-1567 SP-HX*.

PRIMER REQUIREMENTS:

Use **EP PRIMER**.

MIXING INSTRUCTIONS:

Thoroughly mix the A & B parts by appropriate ratio. Stir for 2 minutes with a jiffy mixer.

APPLICATION NOTES:

When applying a smooth floor, it is recommended to first apply a tight squeegee coat of *RAP-1567 SP or RAP-1567 SP-HX* to fill voids and bugholes. Contact the product manufacturer for application recommendations. It is also recommended to mix several small batches at a time due to the fast reactivity. The manufacturer recommends no more than two-gallon batches per application. Rollers should be replaced on an hourly basis. Never apply more than 20 mils per application.,

REPAIRS AND MAINTENANCE:

Small repairs to cuts in the coating can be made with *RAP-1567 SP or RAP-1567 SP-HX*. This material can be caulked or brushed on the surface after scuffing. Re-spraying on *RAP-1567 SP or RAP-1567 SP-HX* (after 1 hours of initial application) generally requires the use of a primer or sanding to achieve optimum adhesion.

SHELF LIFE AND STORAGE:

Six months in factory delivered unopened drums. Keep away from extreme heat, cold, and moisture. Maintain at a proper storage temperature of 60°F - 100°F.

PACKAGING:

- 5 gal pails
- 55 gal drums
- 260 gal Totes

SHIPPING INFORMATION:

RAP-1567 SP and RAP-1567 SP-HX can ship via commercial truck lines. The class is “55” polyurea spray. The “A” and “B” sides are unregulated.

SAFETY AND HANDLING:

See MSDS Sheets

Adhesion Results:

ASTM D-4541 Elcometer

Concrete (No primer) >300 psi → Concrete Failure
Concrete (Primer) >300 psi → Concrete Failure
Concrete (Epoxy) >300 psi → Concrete Failure
Steel (No primer) >900 psi → Substrate Failure
Steel (Epoxy primer) >1500 psi → Primer Failure
Wood (No primer) > 250 psi → Delamination

Chemical Resistance:

<u>Chemical</u>	<u>Result (25°C)</u>
Acetic Acid (100%)	C
Acetone	C
Ammonium Hydroxide (50%)	RC
Benzene	C
Brine-Saturated H ₂ O (310g/l)	R
Chlorinated H ₂ O	R
Clorox® (10%) H ₂ O	R
Diesel Fuel	RC
Gasoline	RC
Gasoline / 5 % MTBE	RC
Gasoline / 5% Methanol	RC
Hydrochloric Acid (20%)	R
Hydrofluoric Acid (10%)	NR
Hydraulic Fluid (oil)	RC
Isopropyl Alcohol	R
Lactic Acid	RC
MEK	RC
Methanol	R
Methylene Chloride	C
Mineral Spirits	RC
Motor Oil	R
MTBE	C
Muriatic Acid (10%)	R
NaCl / H ₂ O (10%)	R
Nitric Acid (20%)	NR
Phosphoric Acid (10%)	R
Phosphoric Acid (50%)	NR
Potassium Hydroxide (10%)	R
Potassium Hydroxide (20%)	R, Dis
Propylene Carbonate	RC
Skydrol®	C
Sodium Hydroxide (25%)	R
Sodium Hydroxide (50%)	R, Dis
Sodium Hypochlorite (10%)	R
Sodium Bicarbonate	R
Stearic Acid	R
Sugar / H ₂ O	R
Sulfuric Acid (10%)	R
Sulfuric Acid (>50%)	RC
Toluene	R
1,1,1-Trichlorethane	C
Trisodium Phosphate	R
Vinegar / H ₂ O (5%)	R
H ₂ O	R
H ₂ O (14 days @ 82°C)	RC
Xylene	RC

Chemical Resistance :

Chart Key

R ⇒ **Recommended** Little or no visible damage
RC ⇒ **Recommended Conditional** Some effect, swelling, discoloration
C ⇒ **Conditional** Crackling-wash down within 1 hour of spillage to avoid effects.
NR ⇒ **Not Recommended**
Dis ⇒ **Discoloration**

Coverage Calculations:

<u>Coating Thickness</u>	<u>Sq.Ft /gal</u>
20 mils	70
30 mils	48
40 mils	36
50 mils	29
60 mils	24
80 mils	18
100 mils	14
250 mils	5.5

Warranty:

The technical data and any other printed information furnished by **Engineered Polymers, Inc.** is true and accurate to the best of our knowledge. **RAP-1567 SP and RAP-1567 SP-HX** conforms to in-house quality control procedures and should be considered free of defects. Due to the wide range of applications of this product, it is impossible to assume responsibility for any errors in regard to application, coverage, workmanship, over-spray or injuries resulting from the use of **RAP-1567 SP and RAP-1567 SP-HX**. **Engineered Polymers, Inc.** makes no warranty, expressed or implied, of its products and shall not be liable for indirect or consequential damage in any event.