SPI COATINGS

PROVEN PERFORMANCE • REAL WORLD SOLUTIONS

INSULATION AND CORROSION SPECIALISTS

SP LIQUID MEMBRANE

Technical Data Sheet (05/29/19)

DESCRIPTION

SP LIQUID MEMBRANE is a tough, one-part elastomeric hydrocarbon rubber compound coating that is loaded with a ceramic pigment for strength. Upon curing, SP LIQUID MEMBRANE provides a protective coating film of superior adhesion and flexibility, and is resistant to abrasion and impact. SP LIQUID MEMBRANE can be used as a primer, as a one-coating system or as a topcoat to seal SUPER THERM from ponding water. SP LIQUID MEMBRANE can be applied over pressure-washed substrate of TPO, EPDM, PVC, wood, concrete or metal.

TYPICAL USES

- As a protective coating on metal, concrete, wood, etc. to add water resistance and longevity.
- As a one-coat system on new or existing roofs, and other commercial/industrial surfaces with minimal surface preparation.
- As a moisture protective membrane to stop moisture penetration, contaminants, and mold and mildew.
- Top coat in a thin film over the HPC and HSC to protect them from weathering, water and to help guard from abuse during normal operations.
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APPLICATION METHODS

SP LIQUID MEMBRANE can be applied to concrete, EPDM, TPO, PVC, wood, metal or masonry substrates. The coating can be applied by spray, brush or roller. For specific instructions on surface preparation, mixing and application, please refer to the SPI's application instructions for SP LIQUID MEMBRANE (millage may vary due to surface profile), and what is required of the coating.

NOTE: This product must not be applied on or within 2 inches of chlorinated rubber.

NOTE: Never use mineral spirits to prep surfaces or to thin this product.

NOTE: SP Single-Ply Primer must be used to prime PVC, TPI and EPDM prior to applying SP Liquid Membrane.

PHYSICAL DATA

- Solids: By weight 67.4% / By volume 59.8%
- 60 MINUTES TO TACK FREE AT 70°F (21°C)
- Overcoat window is unlimited
- Lead and chromate free
- Net Weight: 8.3 lbs. per gallon
- Viscosity: KU141
- VOC Level: 3.5/lbs. per gal/419 grams/liter
- Shelf Life: Up to 3 years (unopened) under appropriate storage condition (see MSDS)
- One component coating; No curing agent needed
- Tensile strength: 1765 psi
- Elongation: 512% / Permeance: 7.3
- ASTM 6083 Testing: Pass
- Tear Resistance: 351 lbf/in
- Fungi Resistance Rating "0"
- Low temp flex -15°F: Pass
- 1000-hour accelerated weathering: Pass
- White in color; available in colors per minimum order requirement
- Maximum Surface Temperature when applying; 150°F (65°C)
- Minimum Surface Temperature when applying; 50°F (10°C)
- Maximum Surface Temperature after curing; 160°F (71°C)
- Failure will occur at a constant temperature equal to or greater than 325°F (163°C); consult SPI for intermittent temperatures greater than 160°F (71°C)
- Can be applied over damp to wet surfaces
- Resistant to animal fats
- Cannot be applied directly over foam; use SUPER THERM to separate

SAFETY PRECAUTIONS

Do not use this product without first taking all appropriate safety measures to prevent property damage and injuries. These measures may include, without limitation: proper ventilation, use of proper lamps, wearing of protective clothing and masks, tenting, and proper separation of application areas. This coating is flammable. Keep away from fire, or other sources of ignition. For more specific safety procedures, please refer to the SP LIQUID MEMBRANE Material Safety Data Sheet. **KEEP OUT OF REACH OF CHILDREN.**

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Application Instructions (7/10/19)

SP LIQUID MEMBRANE is a solvent-based rubber, spray-able coating designed to provide a 20-mil waterproofing membrane that can seal over crack, pinholes and around pipes or protrusions over any type of roofing or walls. It can also be used within a roofing system, as specified.

SURFACE PREPARATION

Surface must be clean from oil, tar, rust, grease, salts, and films.

1) Use general degreaser if needed.
2) Clean surface using TSP (tri-sodium-phosphate) or a citrus cleaner to release dirt and degreaser residue.
3) Pressure-wash if possible @ 3500 psi.
4) Salt contamination on a surface can come as a result of salt water, fertilizers, and car exhaust. Use Chlor*Rid or equivalent to decontaminate surface if salts are present. Acceptable levels: Nitrates: 5-10 mcg/cm², Sulfates: 5-10 mcg/cm², Chlorides: 3-5 mcg/cm²
5) SP LIQUID MEMBRANE must be applied during proper temperatures and the prescribed overcoat window of the coating over which it will be applied.
6) If applied over an existing coating having a glossed or shiny finish, it must be sanded and roughed to remove gloss before application, to improve the profile.
7) SP LIQUID MEMBRANE can be applied at any time.

USES

1) As a one-coat system (20 mils dry/40 mil wet/40 sq.ft./gallon)
2) As a base coat for Super Therm (10 mils dry/16 wet mils/100 sq.ft./gallon)
3) As a top coat for ponding water (3.0 mils dry/6 mil wet/250 sq.ft./gallon)

MIXING

1) Mix by hand or with a power drill using low-medium speed.
2) When the container is opened, the coating will be a clear solvent on top. Mix continuously until the entire surface of the coating turns a solid color. Once the coating color has turned completely uniform, mix for two more minutes making sure all paste is off of the bottom.

NOTE: For start & stop (lunch), put gun into solvent pail and cover unused product pail with cloth or plastic to prevent evaporation of solvents.

POT LIFE

8 hours at 70°F degrees (21°C) at 60% or higher Relative Humidity.
Cooler temperatures; longer pot life. Warmer; shorter pot life.

APPLICATION

1) SP LIQUID MEMBRANE can be applied by soft bristle brush or ½-3/4" nap roller made for solvent use or spray. If application is by spray, use a standard airless sprayer (2.0 gallons/minute at 3,300 psi) with a .035 tip.
2) Overcoat with other coatings at any time. No special requirements for over-coating.
3) If thinning is necessary: MEK would be the best, most compatible choice.. Xylene is the next best choice. Keytones can be used, if necessary, but will tend to evaporate more quickly.
   NOTE: Solids by volume should be kept as high as possible, therefore, start at 10% dilution rate and check to see if thinning is adequate. Add more if needed. A 20% dilution should be the maximum to thin the product but be aware that the solids by volume has changed and additional wet thickness will need to be applied to achieve the proper spread rate and proper dry mil thickness.

APPLICATION NOTES

1) The number of coats necessary and the thickness of each will be in accordance with the job specifications.
2) Temperatures must always be a minimum of 45 degrees.
3) Dries extremely fast when applied in direct sunlight at 90°F or higher temperatures. May set up in 5-10 minutes.
4) SP Single-Ply Primer must be used to prime PVC, TPO and EPDM prior to applying SP Liquid Membrane.
5) HIGH-HEAT SYSTEM: a) HPC applied over hot surface at thickness according to temperature level, b) RUST GRIP applied @ 150sf (145sm) for toughness, then c) SP LIQUID MEMBRANE for water/air seal plus rubber flex for movement.

CURE TIME

1) 30-60 minutes to tack-free when 70°F. (21°C).
2) Fully cures in thirty days when 70°F (21°C).
3) Dries extremely fast when applied in direct sunlight at 90°F or higher temperature. May set up in 5-10 minutes.

CLEANING EQUIPMENT

1) If breaks are taken, spray systems should be flushed with solvent. Always use Xylene to clean equipment. Do not use Acetone as it will cause product to clot.
2) After completion, spray system should be flushed and cleaned with solvent.
3) After completion, brushes and rollers should be discarded.
4) Unlike other types of rubber coatings, the application can start and stop using the steps above without the normal problems of the coating setting up in the hoses, gun and machine. It is very applicator-friendly.

SAFETY DATA SHEET

SECTION I - PRODUCT INFORMATION:

PRODUCT IDENTIFIER: SP LIQUID MEMBRANE
GHS PRODUCT IDENTIFIED: Global Harmonized System #3208.90.000
MANUFACTURER: SUPERIOR PRODUCTS INT'L II, INC.
ADDRESS: 10835 W. 78th St., Shawnee, KS 66214
PRODUCT USE: For roofing: waterproofing/sealer
EMERGENCY TELEPHONE NUMBER: 800-424-9300; 202-483-7616

SECTION II - HAZARD IDENTIFICATION:

The product is a flammable, solvent-based product and should be treated according to all known safety precautions. Refer to Section VII for Storage and Handling recommendations, Section VIII for Personal Protection, Section XIV for transport.

SECTION III - HAZARDOUS INGREDIENTS:

HAZARDOUS INGREDIENTS	%	CAS/PIN	TLV	PEL
ParaChloroBenzoTriFluoride	28.5	98-56-6	N/E	N/E
Aromatic 100	15.7	64742-95-6	25	25
Toluol	7.31	108-88-3	20	20

SECTION IV - FIRST AID MEASURES:

INHALATION: Remove to fresh air. Give oxygen if required. Seek medical help.
EYES: Flush w/water for at least 15 minutes; see physician.
SKIN: Remove contaminated clothing; wash affected areas w/mild soap & water.
INGESTION: Do not induce vomiting. Do not give liquids. Seek medical attention according to amount of product ingested.

SECTION V - FIREFIGHTING MEASURES:

CONDITIONS TO AVOID: None
DECOMBUSTION PRODUCTS: Fumes, smoke, carbon monoxide, aldehydes
AUTOIGNITION TEMP.: >499C. deg. **MINIMUM IGNITION ENERGY:** N/A
FLASH POINT & METHOD: 41C. TCC
FLAMMABLE LIMITS: (Lower) 1.4% **(Upper)** NAV
SENSITIVITY TO STATIC DISCHARGE? Yes
SENSITIVITY TO MECHANICAL IMPACT? N/A
SPECIAL PROCEDURES: Firefighters should wear full-body protection & SCBA
MEANS OF EXTINCTION: Foam, dry chemical, carbon dioxide; water fog to cool containers exposed to heat.

SECTION VI - ACCIDENTAL RELEASE MEASURES:

Remove all sources of ignition; avoid breathing vapors; ventilate area; remove with inert absorbent. Dispose in accordance with Federal, State and Locak regulations. This product is totally lead, chromate and mercury-free. Empty containers with only DRY residue remaining or DRY residue shall be considered LANDFILL material.

SECTION VII - HANDLING AND STORAGE:

Storage Requirements: Maintain temperature between 32-122F. degrees; average shelf life is 3 years @ 77F. degrees. Empty containers may contain residual liquid or vapor and should not be penetrated or exposed to ignition sources.

Handling Procedures/Equipment: Use non-sparking tools. This liquid contains volatiles that give off invisible vapors. Either the liquid or vapor may settle in low areas or travel some distance along the ground or surface to ignition sources where they may ignite or explode. Keep away from ignition sources such as heat, sparks, pilot lights, static electricity and open flames.

NAP = Not Applicable NAV = Not Available

SECTION VIII - EXPOSURE CONTROLS AND PERSONAL PROTECTION:

PERSONAL PROTECTIVE EQUIPMENT: To be worn when spraying or within contained areas--Half-face respirator w/organic vapor filter, safety glasses w/shields, PVA or nitrile chemical-resistant gloves, skin protection; for all other applications, good judgement should be used.

ENGINEERING CONTROLS: The use of mechanical ventilation is recommended for confined space; use explosion-proof ventilation equipment.

SECTION IX - PHYSICAL AND CHEMICAL PROPERTIES:

PHYSICAL STATE: Liquid **SOLUBILITY IN WATER**: Insoluable

APPEARANCE AND ODOR: White liquid, solvent odor

FREEZING POINT: NAP **BOILING POINT**: N/A **pH**: NAP

SPECIFIC GRAVITY: 1.23 **ODOR THRESHOLD**: 0.4ppm

COEFF. WATER/OIL: NAV **EVAPORATION RATE**: .82% **VOLATILES**: 59%

VAPOUR DENSITY (Air=1): 1+ **VAPOUR PRESSURE**: 8mmHg@20C. deg.

SECTION X - STABILITY AND REACTIVITY:

CONDITIONS OF REACTIVITY: Oxidizers **CORROSIVE**? No

CHEMICAL INCOMPATIBILITY: Oxidizing materials

CONDITIONS OF INSTABILITY: Stable

HAZARDOUS POLYMERIZATION: will not occur

HAZARDOUS DECOMPOSITION PRODUCTS: Combustion will produce carbon dioxide, possible carbon monoxide.

SECTION VI - HEALTH HAZARD DATA:

May cause irritation by all routes of exposure. May produce symptoms of central nervous system depression including headache, dizziness, nausea, loss of balance and drowsiness.

Short-Term Exposure: May be irritating to eyes and skin.
Ingestion may cause damage to the lining of the gastrointestinal tract.
Sensitizing capability: None known.

Chronic Exposure: Prolonged or repeated breathing or swallowing of large amounts may cause liver and kidney damage based on animal studies.

Synergistic Materials: None known.

Carcinogenic: Not known to be.

SECTION XII - ENVIRONMENTAL INFORMATION:

Air: 3.17 lbs./gallon; 380 grams/liter V.O.C.

Water: Insoluble in water; reacts slowly w/water forming polyurea polymer and liberating CO2 gas

Soil: Lead- and chromate-free, not hazardous under RCRA 40CFR

SECTION XIII - WASTE DISPOSAL:

Dispose of as paint according to local regulations.

SECTION XIV - TRANSPORT INFORMATION:

Product is considered a combustible liquid, but does not require DOT labeling due a high flashpoint.

SECTION XV - REGULATORY INFORMATION:

Superfund Amendments & Reauthorization Act of 1988 (SARA) Title III requires emergency planning based on Threshold Planning Quantities (TPQs) and release reporting based on Reportable Quantities in 40CRF355 (used for SARA 302, 304, 311, 312,313)

SECTION XVI - OTHER INFORMATION: NAV

PREPARED BY: J. Pritchett, Superior Products Int'l II, Inc. **DATE**: 5/12/15