



# APPLICATION / SPECIFICATION DATA

## MCP SYSTEM 3030-R-215 MIL

### HOT-APPLIED RUBBERIZED ASPHALT WATERPROOFING MEMBRANE

#### 1. PRODUCT DESCRIPTION

MCP-3030 Rubberized Waterproofing Membrane is a hot-applied highly-rubberized asphalt-based composition which is specifically formulated as a fluid material which is applied to form a continuous adhered waterproofing system. During application, the membrane material is simply melted in an appropriate indirectly heated melter, poured or pumped onto the prepared surface, and then leveled to thickness of at least 1/8-inch to form a seamless waterproofing membrane.

MCP-3030 Rubberized Waterproofing is generally used in the waterproofing of various types of Portland cement concrete surfaces including precast and poured in place roofs, bridge decks, tunnels, and parking structures. The unique properties of the membrane permit its use in re-roofing operations over a variety of substrates, and for waterproofing of other surfaces, including gypsum and wood surfaces. Since MCP-3030 Rubberized Waterproofing is designed as a flexible, elastomeric waterproofing material, applications are normally protected from traffic loadings, abrasion, puncturing, and UV radiation with appropriate surface coverings for the specific use.

#### 2. PRODUCT BENEFITS

**Rubber Content:** MCP-3030's substantially higher amount of this added polymer extends its expected lifespan beyond 20-years by helping retain its elastomeric and elongation properties. This results in a higher-quality waterproofing layer with prolonged adhesion that will not become brittle, crack, and fail over time.

**Rubber Dispersion:** MCP-3030 boasts an impressively high softening point, which is the primary indicator of an adhesive's rubber polymer dispersion. The higher the softening point and the better the rubber dispersion, the longer a coating will retain elasticity, adhesion and strength. MCP-3030's excellent temperature flexibility allows it to maintain strength an tenacious adhesion even as outside temperature fluctuates greatly between high and low.

**Application Ease:** MCP-3030's proprietary formula allows it to more effectively flow into cracks and crevasses, bridging cracks 1/8" wide, as opposed to competitors that only bridge cracks 1/16" wide. Despite this, MCP-3030 is still a high-build product that is highly sag resistant, even on the hottest of days. MCP-3030 is 100% solids and cures immediately upon cooling, eliminating the risk of shrinking and cracking over time.

#### 3. APPLICATION

The unit weight of MCP-3030 Rubberized Waterproofing is 9.9 lbs. per gallon at 60° F (15.5° C). To use, the product is melted, then poured or pumped onto prepared surfaces, leveled, and then covered with an appropriate protective system.

##### Melting:

MCP-3030 Rubberized Waterproofing Membrane must be melted in a double boiler-type melting unit which is equipped with both agitation and recirculation systems. The temperature of the heat transfer oil should not exceed 525° F (273.9° C). The melting unit must be capable of safely heating the product to 400° F (204.4° C).

**CAUTION:** Do not agitate when adding new blocks of material. Most new oil jacketed melters now have a thermos switch that can be set to shut off the heating unit once the desired temperature is met.

##### Surface Preparation:

Concrete surfaces to be waterproofed shall be free from major defects and foreign matter such as dust, moisture, excess laitance, curing compound, soap, oil or grease, etc. The surface should be uniform and not have any surface protrusions in excess of 1/8-inch. Note that some decks may require shot blasting, sandblasting or other appropriate cleaning prior to

membrane application. The surface shall also be sufficiently dry to restrict amounts of bubbling which may occur during membrane application.

##### Prime Coat:

Priming with MCP-3020 Penetrating Asphalt Based Primer or an approved cutback asphalt meeting requirements of ASTM D-41, which is diluted with fast-drying solvent (low boiling point naphtha, 1 part D-41 to 2-3 parts solvent) is required. MCP-3020 should be uniformly spray applied to the prepared surface at a rate of between 0.015 to 0.03 gallons per square yard. All metal surfaces that the membrane will be bonded to such as HVAC units, ducts, vents, flashings, etc. shall be allowed to completely dry before membrane application proceeds.

##### Crack, Joint and Discontinuity Pre-Treatments shall be performed prior to membrane application as follows:

**Less than 1/16-inch wide:** Cracks less than 1/16-inch wide do not require any special treatment prior to membrane application.

**Between 1/16 and 3/8-inch wide:** A band of membrane shall be applied over the crack or joint and shall extend a minimum of 6-inches on each side of the crack or joint. 6-inch wide strips of UPI Polyester Mat shall be embedded into the hot membrane and centered over the crack or joint. Please note that this pre-treatment is applicable for movements up to 50% of the joint width.

**Between 3/8 and 1 1/2-inch wide:** A band of membrane shall be applied on each side of the crack or joint at least 12 inches on each side of the crack or joint. Strips of UPI Polyester Mat shall be embedded into the membrane and extend a minimum of 8 inches on each side of the crack or joint. The fabric shall be depressed into the crack or joint to a depth between 1 and 2 times the crack joint or width. During application of the continuous membrane, the loop formed the reinforcement shall be filled with the membrane material. Please note that this pre-treatment is applicable for movements up to 50% of joint width.

##### Discontinuities:

At all other types of horizontal and vertical discontinuities in the surface such as HVAC ductwork, flashings, Vents, etc., pre-treatment shall consist of an initial band of membrane applied at a minimum of 6 inches on the horizontal plane and at least 3 inches in the vertical plane. A layer of reinforcing fabric (minimum of 2 oz. per square yard spun bonded polyester or equivalent) which is at least 4 inches wide, shall be applied centered over the discontinuity.

##### Membrane Application:

MCP-3030 Rubberized Waterproofing Membrane is applied at application temperatures to the prepared surface by either pouring or pumping from the melter. The MCP-3030 is then distributed evenly on the deck surface using a flat blade squeegee approximately 18 inches wide and 3/16 to 1/16-inches thick. Moisture in the surface may cause bubbling in the membrane. Bubbles or other defects which appear during membrane application may be corrected by use of additional material.

Following membrane application, UPI 40/40 Base Sheet or appropriate type of protective surfaces for the intended use should be applied to the completed membrane to protect it from punctures, abrasions, and UV exposure. Typical types of protective surfaces which are used include polyethylene sheeting, protection boards, various rolled roofing, asphalt saturated sheets, etc. The membrane should be covered as soon as possible and should not be left uncovered for more than 30 days. To provide a non-tacky surface for subsequent work, the membrane may be dusted with fine material powder (minus No. 200 mesh) lime or cement.

##### Vertical Flashings and Penetrations:

At all vertical flashings and penetrations, pretreatment shall consist of an initial application of MCP-3030 a minimum of 6-inches on the horizontal

plane and at least 3-inches on the vertical plane. A layer of UPI Polyester Mat at least 4-inches wide is to be applied over the discontinuity.

**Pot Life:**

Pot life of MCP-3030 at application temperature is approximately 12 to 15 hours. Pot life may be extended by adding fresh blocks as material is applied and quantity remaining in the kettle decreases. Rubberized membranes should be agitated while being applied and may be reheated to application temperature once, after the initial heat up. Additional reheating of the material may result in degradation of properties or jelling in the melter unit. When the pot life has been exceeded, the product will begin to thicken and may then jell. If this occurs, it should immediately be removed from the kettle and discarded.

**MCP 3030**

<b>TECHNICAL DATA</b>	<b>TYPICAL VALUE</b>
Property	CGSB 37-GP-50M Requirements
Flash Point, C.O.C.	500° F
Cone Penetration @ 77° F (25° C)	110 max.
@ 122° F (50° C)	200 max.
Flow @ 140° F (60° C)	3 mm max.
Toughness	5.5 joule min.
Toughness Rating	0.04 min.
Adhesion Rating	1.0 min.
Water Vapor Permeance	1.7 ng/Pa. m <sup>2</sup> s
Water Absorption	0.18 gr max. gain
Low Temperature Flexibility @ -13° F (-25° C)	Pass
Crack Bridging @ -13° F (-25° C)	Pass 10 Cycles
Heat Stability, 5 Hours	Pass
Viscosity at Application Temperature	2 – 15 seconds
Product Application Temperature	380° F
Minimum	400° F
Maximum	
Ambient Temperature Restrictions	Above 0° F (-17.7° C)

**Application:**

For full application instructions, please refer to the comprehensive MCP-3030 Application Guide.

**Clean-Out:**

Clean-out of equipment lines and tanks may be done using mineral spirits or a non-flammable equivalent.

**CAUTION:** All flames and heat sources must be extinguished before clean-out operations have begun. Be sure to remove all solvent from the melting tank prior to the next use of the kettle as sealant dilution and flash problems may occur.

**Packaging:**

The material is packaged in polyethylene bags and placed in boxes, which weigh approximately 30 pounds.

*For specific recommendations and coverage rates, please contact your local Urethane Polymers International, Inc. Representative or Urethane Polymers International, Inc. Technical Service Department.*

**Storage:**

During storage, do not stack pallets or remove protective covering. Pallets may be stored outdoors if the protective covering is left intact.

**5. PRECAUTIONS**

Before using this product read the container precautionary label and the Safety Data Sheets (SDS) carefully. Personnel applying urethane coatings and solvent-based epoxy primers should wear protective clothing and gloves, avoid contact of material with skin or eyes and avoid breathing vapors. Mix and apply in well ventilated areas and observe normal safety precautions. Keep materials away from heat, sparks, and flames. Do not allow the use of spark producing equipment during application and until all vapors are gone. Post “No Smoking” signs. Store materials in a dry place at temperatures between 35 -85°F.

**6. GUARANTEE / WARRANTY**

When this System is installed by a Factory Qualified Applicator, is inspected and approved in accordance with these specifications, and after receipt of the final payment, the Factory Qualified Applicator shall issue a standard installation guarantee covering defects in material and workmanship.

UPI warrants its products to be free of defects in workmanship and materials only at the time of shipment from our factory. If any UPI materials prove to contain manufacturing defects that substantially affect their performance UPI will, at its option, replace the material or refund the purchase price.

The dollar value of UPI’s liability and buyer’s remedy under this limited warranty shall not exceed the purchase price of the UPI materials in question.