

LIQUID MEMBRANE 6090™



Tech Data

Product Name

Liquid Membrane 6090™

Product Description

Basic Use

Liquid Membrane 6090 (LM6090) is intended for use as a waterproofing membrane on concrete structures in applications such as foundation walls, planters, tunnels, reflecting pools, shower/kitchen sub-floors or roof decks. It can also be used as a repair material for Hydrotech's Monolithic Membrane 6125® (MM6125).

Limitations

LM6090™ is not intended as an exposed or traffic-bearing membrane.

Do not install LM6090 over lightweight concrete without prior written approval from Hydrotech.

LM6090 may be applied at temperatures as low as 0°F; however, for applications below 40°F consult Hydrotech.

Composition and Materials

LM6090 is a two-component (base material and activator), Difunctional Poly-Butadiene rubber. After its mixing and application, the material cures to provide a continuous elastomeric membrane.

Types

LM6090 H

- for near horizontal surfaces

LM6090 V

- for sloped & vertical surfaces

LM6090 S

- a solvent less material is also available for applications where adequate ventilation may be a concern. (Contact Hydrotech for specific information.)

Container and Weight

The base component is supplied in a five-gallon (Imperial) pail (equivalent to a six-gallon U.S. pail). Each pail contains five gallons (U.S.) of usable material. The larger pail provides the room necessary

to facilitate the mixing of the two components. Each pail of material weighs approximately fifty pounds. The activator component is supplied in 1 pint cans, approximately 17 fluid ounces (U.S.). The weight of the installed membrane is approximately 0.40 pounds per square foot.

Coverage

The coverage rate is approximately 25 square feet per gallon at a 60 mil wet film thickness. Therefore, one five-gallon pail of membrane will cover approximately 125 square feet.

Coverage will vary with surface finish.

Applicable Standards

Meets or exceeds the performance requirements of ASTM C 836-00 and UL Class A.

Technical Data

Typical physical properties of LM6090 H and V are show in Table 1 (below).

Installation

Surface Preparation

All concrete surfaces must be clean, dry, free of voids, projections, loose material, dust, oil, unapproved curing compounds or other contaminants. Concrete must be allowed to cure and dry a minimum of 14 days and shall have a light steel troweled or broomed finish.

All exposed metal shall be free of paint, oils, rust and contaminants.

When applying LM6090 to a cold deck in strong sunlight, surface blisters may develop as the result of a temperature differential between the surface of the deck and the surface of the membrane. In this instance it may be necessary to eliminate the use of Surface Conditioner and heat the deck surface with a propane torch immediately ahead of the membrane application.

Priming

Roller or spray apply LM6090 primer/Surface Conditioner to concrete,

TABLE 1

PHYSICAL PROPERTIES

Property	Typical Value	Test Method
Color	Black	
Elongation	490%	ASTM D-412
Tear Strength	10C pli	ASTM D-624, Die C
Tensile Strength	210 psi	ASTM D-412
Strength @ 100% Modulus	90 psi	ASTM D-412
Hardness	80	ASTM D-2240, Shore 00
Water Vapor Permeance	0.54x10 ⁻³ perms metric	ASTM E-96
Solids Content	93%	
Shelf Life	Indefinite in unmixed state	
Pot Life	30-40 mins. @ 60-80° F	
Cure Time	Light Traffic 12 hours, Fully Cured 7 days	
Environmental Resistance	Excellent resistance to moisture, ozone, ultra-violet, extreme temperatures, industrial atmospheres	
Chemical Resistance	Excellent resistance to salts, diluted acids, alkali solutions, bacteria and fungi	

wood and metal at a rate of 200-300 square feet per gallon. Allow Primer/Surface Conditioner to dry thoroughly.

Since the Primer/Surface Conditioner is an emulsion, its use is restricted to temperatures above freezing.

Application

Empty the container of activator into the 5-gallon pail of material and properly mix for six to eight minutes.

Pot life/initial set up of the membrane once mixed will vary depending on ambient conditions, with 30-40 minutes typical at 80°F and doubling with every 20°F drop in temperature.

LM6090™ may be applied when ambient temperatures are below freezing, but the primer should be omitted and a much longer initial set time should be expected, possibly 5 hours or more.

All shrinkage and non-moving structural cracks under 1/16" shall be treated with a 60 mil coating of LM6090 extending 3 inches to either side of the crack. Cracks up to 1/4" and all construction joints must be pretreated with a 60 mil coating of LM6090 extending 6 inches beyond either side of the crack, into which is centered and embedded a 6 inch strip of approved reinforcing and top coated with another coating of LM6090.

All flashing and detail work should be completed prior to the application of the membrane and allowed to fully set up prior to application of the field membrane. If site conditions are dusty or if the detailing has been installed for 12 hours or longer prior to field installation, it may be wiped clean with Xylol or Toluol (and allowed to dry) prior to the application of the field membrane.

The mixed material may be squeegeed, troweled, or spray-applied to the concrete surface. LM6090 should be applied at a minimum thickness of 60 mils. One gallon will cover approximately 25 square feet when applied at a 60-mil thickness.

A fully fabric-reinforced membrane assembly is installed as follows. An initial application of properly mixed LM6090 is installed at 60 mils as described above. A layer of Flex Flash F, spunbonded polyester reinforcing fabric, is laid into the initial application while it is still wet, avoiding wrinkles, folds, and air pockets.

Once this initial membrane/fabric installation has fully set up, the second and final 60 mil thick coat of LM6090 may be applied. No portion of the membrane installation may be walked on until it has been allowed to cure a minimum of 12 hours, however, which on many applications will delay the topcoat application until the next day.

If a water test is to be conducted, the membrane must first cure 36 hours before flooding and be done prior to the placement of an approved protection layer.

Complete LM6090 specifications and guideline details are available upon request.

Precautions

Use in well-ventilated area. If spray application or in area with limited ventilation, wear a positive pressure air-supplied NIOSH/MSMA approved respirator. If swallowed, call physician immediately. Avoid skin and eye contact. User must read container label and Material Safety Data Sheets for health and safety precautions prior to use.

Availability and Costs

Availability

Through American Hydrotech, Inc. Sales Representatives worldwide.

Costs

LM6090 is competitively priced. Contact your local representative or Hydrotech directly.

Guarantees

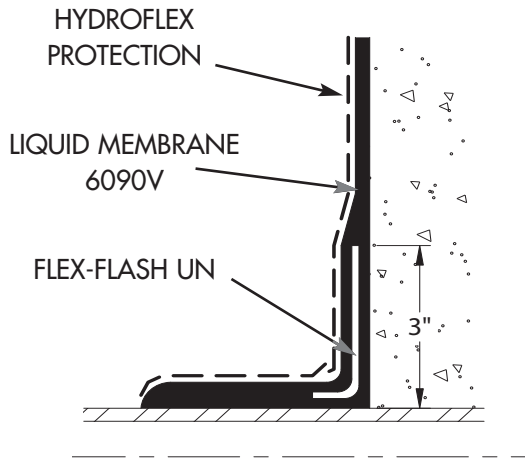
Contact American Hydrotech, Inc. for specific warranty information.

Maintenance

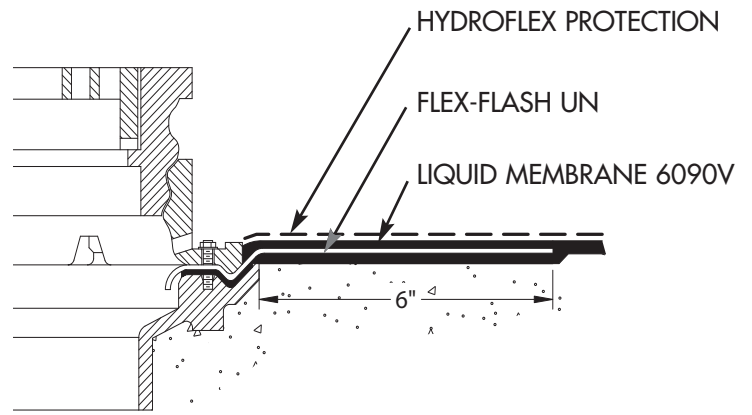
None required. Damaged LM6090 is easily repaired by cleaning the damaged area with hexane and coating with new LM6090.

Technical Service

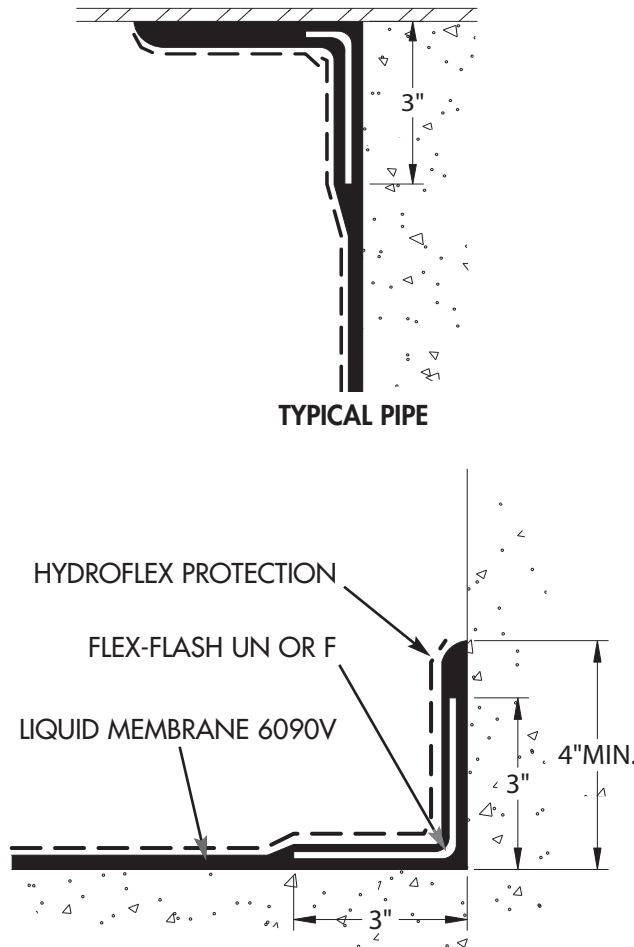
Technical support is provided by a trained network of sales representatives and a Technical Service Department.



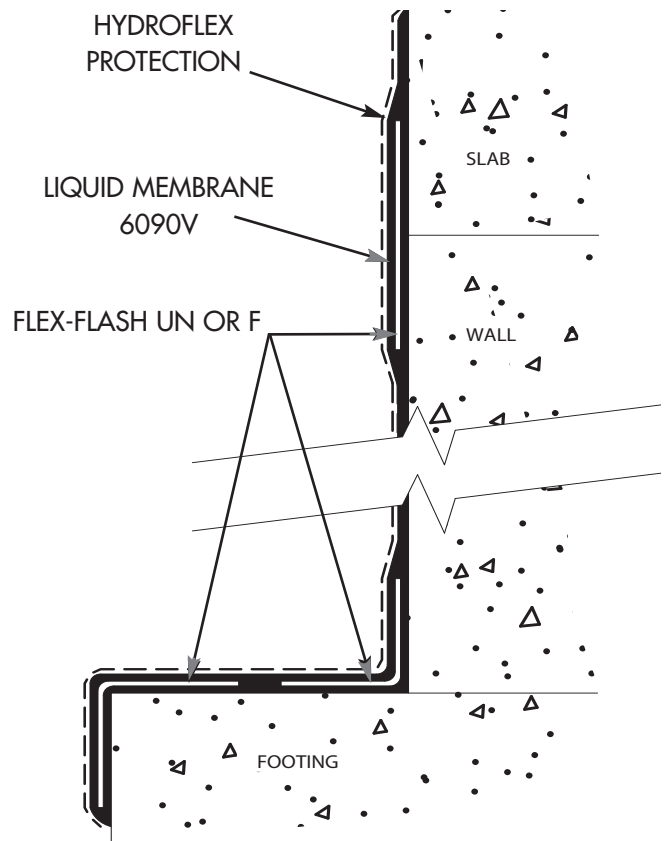
TYPICAL PIPE



TYPICAL DRAIN



TYPICAL CORNER TERMINATION



TYPICAL REINFORCEMENT



American Hydrotech, Inc.
 541 N. Fairbanks Court, Chicago, Illinois
 60611 800.877.6125; 312.337.4998
 312.661.0731 (fax)

www.hydrotechusa.com