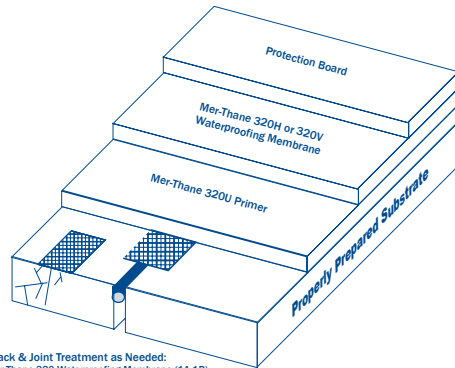




Mer-Thane 320

Elastomeric Bitumen Modified Membrane Urethane Polyurea Waterproofing Membrane



Crack & Joint Treatment as Needed:
Mer-Thane 320 Waterproofing Membrane (1A-1B)
+ Mer-Ko Fiber Tape

MINIMUM DRY FINISHED THICKNESS
60 mils (1.52 mm)

APPROVALS

- Meets or exceeds performance requirements of ASTM C-836-76 and E-96

MATERIAL STANDARDS

- ASTM D-2240
- ASTM D-412
- ASTM D-624
- ASTM D-2369
- ASTM D-2697

SPECIFICATION CLASSIFICATIONS

- 07 14 16 Cold Fluid-Applied Waterproofing
- 07 11 13 Bituminous Damp proofing
- 07 35 00 Elastomeric Deck Coatings
- 07 19 00 Water Repellents
- 07 55 53 Elastomeric Protected Membrane Roofing
- 07 55 56 Fluid-Applied Protected Membrane Roofing

MATERIALS NEEDED

- Joint & Crack Treatment
- Mer-Ko Fiber Tape
 - Mer-Thane 320U Primer, Parts A & B
 - Mer-Thane 320 Waterproofing Membrane
 - Mer-Thane 320H - Horizontal Applications
 - Mer-Thane 320V - Vertical Applications

SUBSTRATES

Mer-Thane 320 can be installed over properly prepared concrete and plywood substrates.

SYSTEM DESCRIPTION

Mer-Thane 320 is a high-performance, monolithic, cold fluid applied, single-component, bitumen modified, urethane polyurea waterproofing membrane. This user-friendly, seamless, impact resistant membrane provides superior adhesion, durability, chemical resistance, weatherability and flexibility. Mer-Thane 320 is available in horizontal and vertical formulations for use in a wide range of applications. Its superior elongation allows for substrate movement without membrane rupture while its chemical structure creates a tenacious adhesive bond engineered to protect concrete and plywood surfaces from deterioration due to water penetration and waterborne chlorides and to prevent lateral water migration between the membrane and base slab or vertical wall. It is chemically engineered to completely seal concrete substrates from moisture penetration during freeze-thaw cycling or high temperature/high humidity thermal cycling.

Mer-Thane 320 installs at a minimum 60 mils (1.52mm) dry finished thickness and is designed for use over properly prepared concrete and plywood substrates. The system incorporates fabric reinforced waterproofing for all flashing areas and at vertical walls and curbs that provides superior waterproofing protection at all vertical surface interfaces and thresholds.

USES/APPLICATIONS

- Positive side waterproofing applications
- Split slab construction
- Exterior foundation walls
- Planter boxes
- Between slab waterproofing
- Base slab waterproofing
- Tunnels & highway bridges
- Over occupied spaces

ADVANTAGES

- Seamless, monolithic waterproofing membrane
- Excellent adhesion
- Can be installed over new or existing surfaces
- Inhibits the growth of mold and mildew
- Maintains elastomeric properties at low temperatures
- Elastomeric properties help compensate for normal building movement
- Outstanding long-term durability and performance

COVERAGES

Note: Coverage rates are approximate only and can vary due to surface conditions, humidity, temperature and installation techniques.

Base Flashing –

Primer Coat..... 300 ft² (27.9 m²)/gallon (3.8 L)
1,500 ft² (139.4 m²)/5 gallon pail (18.9 L)
Yield: 5 mil (0.13mm) DFT

Base Flashing –

Reinforced Waterproofing Membrane

Mer-Thane 320 H and V
Waterproofing Membrane.....200 ft² (18.6 m²)/5 gallon pail (18.9 L)
Yield: 30 mil (0.76mm) DFT

Horizontal Deck Surface –

Primer Coat..... 300 ft² (27.9 m²)/gallon (3.8 L)
1,500 ft² (139.4 m²)/5 gallon pail (18.9 L)
Yield: 5 mil (0.13mm) DFT

Mer-Thane 320 H and V

Waterproofing Membrane.....200 ft² (18.6 m²)/5 gallon pail (18.9 L)
Yield: 30 mil (0.76mm) DFT

COLOR

Mer-Thane 320 is black.

INSTALLATION CONDITIONS

Mer-Thane 320 Membrane should be installed when surface and ambient temperatures are above 50°F (10°C) and below 100°F (38°C). Temperature should be at least 5°F above the dewpoint. Do not install in damp weather or when rain is expected within 24 hours.

Mer-Thane 320 Membrane is very sensitive to heat and moisture. Higher temperatures and/or high humidity will significantly accelerate the cure time and shorten the pot life. Low temperature and/or low humidity will extend the cure time.

SUBSTRATE PREPARATION

The substrate surface must be clean, dry and free of dust and any other contaminants at the time of material application. A minimum finished deck slope of 2% (1/4 unit vertical in 12 units horizontal) is required for proper drainage. Use No. 26 gage bonderized steel or equivalent flashing around the perimeter; clean and degrease all metal flashings with Xylene or MEK. Do not use copper perimeter flashings. Stainless steel requires scuffing with the use of 100-120 grit sand paper prior to cleaning.

Plywood Surfaces

Plywood substrates shall be a minimum 5/8 inch thick (16mm) exterior grade, PS 1, exposure one, plywood, complying with and installed in accordance with the 2006 International Building Code and or 2009 International Building Code with all edges blocked. Face plies must be perpendicular to the supports. The plywood must be attached to all blocking and end bearings with countersunk wood screws, screw or ring-shank nails equivalent to 8d common nails, spaced 4 inches (101.6mm) on center at sheet perimeters and 8 inches (203.2mm) on center in the field. All plywood substrate joints must be open a minimum of 1/8 inch and clean.

Concrete Surfaces

Concrete surfaces must have a finish equivalent to steel troweling with a fine hair brooming. The surface must be clean, sound and provide a uniform surface free of depressions and ridges. All holes must be cleaned and filled with an appropriate Mer-Ko Underlayment. All high spots must be removed by chipping or grinding. Concrete control joints should coincide with stress relief concentration points, with a maximum spacing of 20 ft (6.1 m). All control joints in the concrete substrate must be clean and open a minimum of 1/8 inch.

Surface imperfections, if left untreated, will be noticeable in the finished application. Concrete not meeting the above requirements should be prepared and properly abraded by shotblasting and/or hydro-blasting (10,000-20,000 psi). If water is used, allow to dry completely. Neat cement sacking is not an acceptable surface preparation.

PACKAGING

Primer

Mer-Thane 320U Primer Part A..... 5 gallon pail18.9 liter pail
Mer-Thane 320U Primer Part B..... 5 gallon pail18.9 liter pail

Waterproof Membrane

Mer-Thane 320H 5 gallon pail18.9 liter pail
Mer-Thane 320V 5 gallon pail18.9 liter pail

DETAIL PREPARATION

Mask and protect all adjacent areas not to be coated. Prime all metal using Mer-Thane 320U Primer. Then, apply a minimum one (1) inch cant face strip of Mer-Thane 320 around all pipes, drains and vertical junctions. Bridge flashings using Mer-Ko Fiber Tape, pushing it into the membrane with a trowel. Apply a stripe coat of Mer-Thane 320 over the Fiber Tape and smooth onto the adjacent surface.

APPLICATION INSTRUCTIONS

While material application is in process, all other trade work in the area should be stopped during installation and 72 hours after the application is complete. Read all instructions before starting application. Important: When coating over structural concrete containing lightweight aggregate, the entire substrate must be sealed with Mer-Thane 320U Primer prior to application of the waterproofing membrane. (Do not use 320U primer on plywood).

1. Primer Coat

Prime the necessary surfaces to receive the coating, including all flashings and necessary vertical or sloping surfaces, curbs, cants, parapets, etc.

Mixing

The mixing ratio for 320U is 1 Part A to 1 Part B. The mixing ratio for 300 is 2 Parts A to 1 Part B. Primer Part A and Part B should be thoroughly mixed individually prior to combining them to ensure a homogeneous material. The combined components should be thoroughly mixed using a mechanical mixer at slow speed for 1 to 2 minutes until a uniform color is achieved.

Applying

Apply Mer-Thane 320U Primer to perimeter flashing using a brush and all horizontal deck areas using a solvent resistant phenolic core roller. When using a phenolic core roller, use extra care not to entrap air into the mixture. Apply evenly over the entire deck surface at a rate of one gallon per 300 ft² (3.8 L per 27.9 m²). Apply with continuous coverage to minimize lines and/or streaking.

Allow Mer-Thane 320U Primer to cure for 1 hour at 70°F (21°C) RH 50% before applying the coating. Coatings must be applied within 4 hours of cure when relative humidity is above 50%, and within 6 hours when below 50%, or the surface must be re-primed.

Recommended surface temperature should be greater than 50°F (10°C) and at least 5°F above the dewpoint. Mer-Thane 320U Primer is very sensitive to heat and moisture. Higher temperatures and/or high humidity will significantly accelerate the cure time and pot life. Use caution in batch sizes and thickness of application. Low temperature and/or low humidity extend the cure time.

2. CRACK & JOINT TREATMENT

Plywood Surfaces

Apply 320 Waterproofing Membrane reinforced with Mer-Ko Fiber Tape around all pipes and drains.

Stripe coat all plywood board joints and sheet metal flashing termination/transitions by applying 320 Waterproofing Membrane and reinforce with Mer-Ko 4 inch Fiber Tape embedded for a distance of 2 inches on both sides. Allow the surface to cure for 16 to 48 hours.

Concrete Surfaces

Stripe coat all concrete control joints, and sheet metal termination/transitions and any other openings with 320 Waterproofing Membrane and reinforce with Mer-Ko 4 inch Fiber Tape embedded for a distance of 2 inches on both sides.

Technical Application Guide

Mer-Thane 320

Additionally, stripe coat any other cracks in the concrete using Mer-Thane 320 Waterproofing Membrane and embed Mer-Ko 4 inch Fiber Tape for a distance of 2 inches on either side of the crack.

3. Waterproofing Membrane

Mixing

Mer-Thane 320 Waterproofing Membrane should be thoroughly mixed using a mechanical mixer at slow speed until a homogenous mixture and color is obtained. Use care when mixing to avoid air bubbles. DO NOT entrain air into the mixture. This can result in pinholes, blisters, and/or shortened pot life.

Waterproofing Membrane - First Application

Applying

Apply Mer-Thane 320 Waterproofing Membrane to the perimeter flashing using a brush, or phenolic resin core roller and to the surface using a squeegee or notched trowel at 30 mil DFT. Apply with continuous coverage to minimize lines and/or streaking, back roll as necessary.

Allow Mer-Thane 320 Waterproofing Membrane to cure a minimum of 16 hours and a maximum of 48 hours at 70°F (21°C) 50% RH prior to proceeding with additional coats to ensure proper adhesion. If more than 48 hours elapses, the surface must be primed.

4. Waterproofing Membrane - Second Application

Mix and apply a second coat of Mer-Thane 320 Waterproofing Membrane to the perimeter flashing and entire surface in the same manner as the first, at 30 mil DFT. Apply with continuous coverage to minimize lines and/or streaking.

Allow the 320 Waterproofing Membrane to cure a minimum 16 hours and a maximum of 48 hours at 70°F (21°C) 50% RH before proceeding with any succeeding coats to ensure proper adhesion. Then, install protection board or other protective materials as necessary.

Accessory Protection

Below-grade and between slab applications typically require the use of protection board or geotextile drainage composite material to protect the waterproofing membrane.

CAUTIONS & LIMITATIONS

- The substrate surface must be structurally sound, clean, dry and free of dirt, dust, oil, grease, paint or other contaminants at the time of material application.
- Not suitable as a finished surface, the 320 Waterproofing Membrane can not withstand direct wear and abrasion, a topcoat must be applied.
- Not UV stable.
- Do not install in damp weather or when rain is expected in 24 hours.
- Mer-Ko waterproofing systems are designed for professional installation.
- System warranties require installation by currently listed applicators.
- Not designed for vehicular or heavy steel wheeled traffic.
- Not for use on slabs over unvented metal pans, suspended pool decks, swimming pools, magnesite, lightweight concrete, asphalt surfaces or asphalt overlays.
- Concrete substrates must have a minimum compressive strength of 3,000 psi tested by "point loading" technique.
- The moisture content of the substrate should be checked and approved by a qualified professional prior to installation.
- When contemplating a deck installation over an unheated enclosed space (e.g., garage, etc.) provision must be made to vent the area.
- Containers that have been opened should be used as soon as possible. The product is moisture-reactive and will gel or set up when exposed to moisture in the atmosphere. A polyethylene sheet must be used as a protective blanketing prior to re-sealing the lid on a partially used container. Keep the lid tightly sealed when the material is not in use.
- Before using Mer-Thane products, read all container labels, MSDS, application instructions and storage and handling information carefully. Applicators should wear an approved respirator, protective glasses, clothing and gloves. Contains isocyanates, avoid contact of material with skin or eyes and avoid breathing vapors. Mix and apply materials in well ventilated areas and observe normal safety precautions. Mer-Thane materials are classified as corrosive material and can cause irritation in prolonged exposure. Wash skin thoroughly with soap and water if product(s) contact skin. Consult the Material Safety Data Sheet for additional information and precautions.

TECHNICAL DATA - Vertical

Coverage Rate	200 ² (18.6 m ²)/5 gallon pail
Yield 30 mils (1.52 mm) DFT	
Hardness	35-45
(ASTM D2240, Shore A)	
Tear Resistance	60-80 pli
(ASTM D624, Die C)	
Tensile Strength	450 - 550 psi
(ASTM D412)	
Elongation	450-550%
Specific Gravity	1.21
Total Solids by Weight	84%
(ASTM D2697)	
Total Solids by Volume	76%
(ASTM D2697)	
Viscosity	Pasty
(at 80°F/27°C)	
Service Temperature	-25 to 200°F (-31.7 to 93.3°C)

TECHNICAL DATA - Horizontal

Coverage Rate	200 ² (18.6 m ²)/5 gallon pail
Yield 30 mils (1.52 mm) DFT	
Hardness	50-60
(ASTM D2240, Shore A)	
Tear Resistance	100-140 pli
(ASTM D624, Die C)	
Tensile Strength	450-550 psi
(ASTM D412)	
Elongation	450-550%
Specific Gravity	1.21
Total Solids by Weight	85%
(ASTM D2697)	
Total Solids by Volume	76%
(ASTM D2697)	
Viscosity	2500-6500 cps
(at 80°F/27°C)	
Service Temperature	-25 to 200°F (-31.7 to 93.3°C)

- Protect all finished surfaces that are not intended to receive the deck coating system materials.
- Use extra caution in protecting surfaces not to be coated when using spray application methods. Windy conditions or over spray can damage surrounding surfaces.

STORAGE & HANDLING

Store all Mer-Thane materials in a dry environment at temperatures between 65 to 70°F (18 to 21°C). All materials should be stored in compliance with local fire and safety requirements. Do not store at high temperatures or in direct sunlight. Do not allow uncured materials to freeze. Store materials in tightly closed original containers, off the ground, on plywood or non-asphaltic insulation board. Avoid moisture contamination. Always wear proper safety equipment, including an approved respirator, eye protection and gloves when mixing and/or applying these products. Do not breathe vapors. Do not keep opened containers in confined spaces. Consult published OSHA (Occupational Safety and Health Administration) regulations for additional information and compliance information.

SHELF LIFE

The shelf life is one (1) year from the date of manufacture in the original, unopened metal container when the material is properly stored.

WARRANTY

Five (5), ten (10) and fifteen (15) year warranties are available depending upon product selection and project design. Contact Mer-Ko's Customer Service Department for specific warranty information.

Any recommendation or suggestion relating to the use of MER-KO products made via current technical literature, marketing materials, technical application guides, specifications, and the like, or in response to specific inquiry or otherwise, is based on data believed to be reliable. However, the products and information are intended for use by Buyers having requisite skill and know-how in the industry. Therefore, it is the responsibility of the Buyer to satisfy the necessary requirements of suitability of the products for its own particular use, and it shall be deemed that Buyer has done so, at its sole discretion and risk. Variation in environment, changes in procedures of use, or extrapolation of data may cause unsatisfactory results. Mer-Ko believes the information contained herein is true and accurate as of the date of publication. Information contained here is for evaluation only. Mer-Ko reserves the right to modify and/or change products or literature at any time and without prior notice.

MER-KO[®]
PAREX
www.parexmer-ko.com

Corporate Office

Parex USA, Inc.
4125 E. La Palma Ave., Suite 250
Anaheim, CA 92807
(866) 516-0061
Tech Support: (800) 226-2424

