



Mer-Thane 300SF Specifications

CSI SECTIONS 07 14 16
CSI SECTIONS 07 18 13

CSI SECTION 07 14 16 - Cold Fluid-Applied Waterproofing
CSI SECTION 07 18 13 - Pedestrian Traffic Coatings

SYSTEM OVERVIEW

The Mer-Ko™ Mer-Thane 300SF Elastomeric Urethane Pedestrian Decking System is a multi-layer, single component, solvent-free, low odor, moisture cured, fluid applied, aromatic urethane elastomeric waterproofing membrane system which uses an integrally colored, polyester, aliphatic, single component, moisture cured urethane topcoat for use over plywood, concrete or over other approved substrates.

Mer-Thane 300 SF system is installed using the following components:

- Primer
- Joint and Crack Treatment
- Waterproofing Membrane
- Skid-Resistant Aggregate
- Topcoat

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Installation of multi-layer Elastomeric Urethane Pedestrian Decking System designed for use over plywood, concrete or other approved substrates.
 1. Related Work: Substrate; Plywood or Concrete
- B. Work not Included:
 1. Finishing and corrective work in connection with surfaces to receive the system.
 2. Furnishing and installing metal flashings, drains, vents, ducts, curbs, expansion joints or any other through deck penetration.

1.2 RELATED SECTIONS

- A. Section 06 16 33 - Plywood Sheathing
- B. Section 03 00 00 - Cast In Place Concrete
- C. Section 03 05 00 - Underlayment
- D. Section 07 62 00 - Sheet Metal Flashing and Trim
- E. Section 07 90 00 - Joint Protection

1.3 REFERENCE

- A. ASTM C794 - Standard Test Method for Adhesion-in-Peel of Elastomeric Joint Sealants
- B. ASTM D412- Standard Test Methods for Vulcanized Rubber and Thermoplastic Elastomers
- C. ASTM D624 - Standard Test Method for Tear Strength of Conventional Vulcanized Rubber and Thermoplastic Elastomers
- D. ASTM D2240 - Standard Test Method for Rubber Property—Durometer Hardness

1.4 SYSTEM DESCRIPTION

A. Mer-Thane 300SF is a multi-layer, Pedestrian Decking System designed for use on above grade horizontal plywood, concrete or other approved substrates, consisting of: Mer-Thane 300SC Primer and Optional Mer-Thane 300 Primer, Mer-Thane 500 Waterproofing Membrane, Mer-Thane Fiber Tape (as needed), Mer-Thane 300SF Waterproofing Membrane, Mer-Thane Aggregate RF, Mer-Thane 310 Topcoat and Optional Mer-Thane 300G Topcoat

B. Mer-Thane 300SF Functional Criteria:

1. General:

- a. A minimum roof deck slope of 2% (1/4 unit vertical in 12 units horizontal) is required for proper drainage to either a drip edge metal flashing or deck drain having an attachment/receiver flange.
- b. Minimum No. 26 gage bonderized steel or equivalent flashing is installed around the perimeter.
- c. The use of Stainless steel requires scuffing with 100-120 grit sand paper.
- d. The use of copper perimeter flashings is not approved.
- e. Through deck penetrations are required to be flashed and or sealed.
- f. Building code conformance: The construction shall be acceptable for use under the building code in force in the jurisdiction of the project.
- g. Concrete control joints should coincide with stress relief concentration points, with a maximum spacing of 20 ft (6.1 m).

2. Performance Requirements

a. Membrane

Test	Method	Results
Elongation	ASTM D412	575-675%
Hardness	ASTM D2240	45-55 Shore A
Tear Resistance	ASTM D624	200-240 pli
Tensile Strength	ASTM D412	500-700 psi

b. Topcoat

Adhesion to Base Membrane	ASTM C794	30 pli
Elongation	ASTM D412	175-225%
Hardness	ASTM D2240	90-100 Shore A
Low Temperature Flexibility		-40°F
Tear Resistance	ASTM D624	450-550 pli
Tensile Strength	ASTM D412	3100-3900 psi

1.5 SUBMITTALS

- A. General: Submit Samples, Certificates in accordance with Division 1 General Requirements Submittal Section.
- B. Samples: Submit samples for approval. Samples shall be of materials specified and of suitable size as required to accurately represent each color and texture used on project. Prepare each sample using same tools and techniques for actual project application. Maintain and make approved samples available at job site.
- C. Manufacturer's Warranty: Submit sample copies of Manufacturer's Warranty indicating Single Source Responsibility.

1.6 QUALITY ASSURANCE

- A. Qualifications:
 - 1. Manufacturer: Shall have marketed waterproof pedestrian walking and roof deck systems in the United States for at least ten years and shall have completed projects of same building size and type as this project.
 - 2. Applicator: Shall have attended a Mer-Ko Educational Seminar for installation of system and shall be currently listed and possess a certificate of attendance.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Delivery: Deliver Mer-Ko Mer-Thane 300SF system products in original packaging with manufacturer's identification.
- B. Storage: Store materials supplied by Mer-Ko in a cool, dry location, out of sunlight, protected from weather and other harmful environment, and at a temperature between 65°F (18°C) and 70°F (21°C) in accordance with manufacturer's instructions.

1.8 PROJECT / SITE CONDITIONS

- A. Installation Ambient Air Temperature: Minimum of 40°F (4°C) and rising, and remain so for a minimum of 24 hours thereafter.
- B. Substrate Temperature: Do not apply Mer-Ko materials to substrates whose temperature are below 40°F (4°C) or contain frost or ice.
- C. Inclement Weather: Do not apply Mer-Ko materials during inclement weather, unless appropriate protection is employed.
- D. Sunlight Exposure: Avoid, when possible, installation of the Mer-Ko materials in direct sunlight during high temperatures. Application in direct sunlight during hot weather may adversely affect aesthetics.
- E. Mer-Ko materials shall not be applied if ambient temperature exceeds 120°F (49°C) or falls below 40°F (4°C) within 24 hours of application.
- F. Prior to installation, the surface shall be inspected for contamination, or other defects that may adversely affect the performance of the Mer-Ko materials and shall be free of moisture.

1.9 COORDINATION AND SCHEDULING:

- A. Coordination: Coordinate Mer-Ko Mer-Thane 300SF system installation with other construction operations.

1.10 WARRANTY

- A. Warranty: Upon request, at completion of installation, provide Mer-Ko Limited Warranty. See Mer-Ko Application Guide for Warranty Schedule.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Manufacturer: ParexLahabra, Inc., 4125 E. La Palma Ave., Suite 250, Anaheim, CA 92807
- B. Components: Obtain components of Mer-Ko Mer-Thane 300SF system from authorized distributors. No substitutions or additions of other materials are permitted without prior written permission from ParexLahabra for this project.

2.2 MATERIALS

- A. Primer
 - 1. Mer-Thane 300SC Primer: Two-component, epoxy-polyamine primer.
 - OR-
 - 1. Mer-Thane 300: Two-component, 100% solids, epoxy-polyamine primer.
- B. Crack and Joint Treatment
 - 1. Mer-Thane 500 Waterproofing Membrane: Two-component, fast setting, fast curing, solvent free, high solids elastomeric urethane coating.
 - 2. Mer-Thane Fiber Tape: Strong, durable, flexible fiberglass mesh tape.
- C. Waterproof Membrane – First Application
 - 1. Mer-Thane 300SF Waterproofing Membrane: Single-component, solvent free, moisture cured, aromatic urethane elastomeric waterproofing membrane.
 - 2. Mer-Thane Catalyst CC:
 - 3. Mer-Thane Accelerator M (Optional): Single-component, accelerator designed to speed the moisture cure.
- D. Waterproof Membrane- Second Application
 - 1. Mer-Thane 300SF Waterproofing Membrane: Single-component, solvent free, moisture cured aromatic urethane elastomeric waterproofing membrane.
 - 2. Mer-Thane Aggregate RF: Washed, dry, rounded, crystal silica sand, 16/30 mesh, 6.5+ Moh's minimum hardness.
- E. Topcoat:
 - 1. Mer-Thane 310 Topcoat: Single-component, polyester, aliphatic, single component, fluid-applied, moisture cured, urethane topcoat.
 - 2. Mer-Thane Catalyst CC:
 - 3. Mer-Thane Accelerator T (Optional): Single-component, accelerator designed to speed the moisture cure.

2.3 RELATED MATERIALS AND ACCESSORIES

- A. Substrate Materials: Substrate shall be installed in accordance with its industry standards and applicable building code.
 - 1. Plywood
 - a. Shall be a minimum 5/8 inch thick (16mm) exterior grade, PS 1, exposure one, plywood, complying, and installed in accordance with, 2006 or 2009 International Building Code with all edges blocked.
 - b. Face plies must be perpendicular to the supports.
 - c. 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 (102 mm) on center at sheet perimeters and 8 inches (203.2mm) on center in the field, or as otherwise required by the applicable building code, whichever is more restrictive.
 - d. Plywood boards are spaced a minimum 1/8 inch.
 - 2. Concrete
 - a. Surfaces must be clean, sound and provide a uniform surface free of depressions and ridges.
 - b. Prepare concrete surfaces using a power sprayer, grinder or shot blast as required to produce a clean, sound substrate.
 - c. All holes must be cleaned and filled with an appropriate Mer-Ko Underlayment. All high spots must be removed by chipping or grinding.
 - d. Concrete control joints should coincide with stress relief concentration points, with a maximum spacing of 20 ft (6.1 m).
 - 3. Flashing: Refer to Division 07 Flashing Section for flashing materials.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verify project site conditions under provisions of Section 01 00 00.
- B. Substrate Examination: Examine prior to System installation as follows:
 - 1. Substrate shall be free of dust, dirt, laitance, efflorescence, and other harmful contaminants.
 - 2. Substrate construction in accordance with substrate material manufacturer's specifications and applicable building codes.
- C. Advise Contractor of discrepancies preventing installation of the Mer-Ko Mer-Thane 300SF System. Do not proceed with the Mer-Ko Mer-Thane 300SF System work until unsatisfactory conditions are corrected.

3.2 PREPARATION

- A. Protection: Protect surrounding material surfaces and areas during installation of system.
- B. Clean surfaces thoroughly prior to installation.
- C. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

3.3 MIXING

- A. Mix Mer-Ko proprietary products in accordance with manufacturer's instructions.

3.4 APPLICATION

- A. General: Installation shall conform to this specification and Parex Mer-Ko written instructions and drawing details.

3.5 CLEAN-UP

- A. Removal: Remove and legally dispose of Mer-Ko Mer-Thane 300SF system component debris material from job site.
- B. Clean Coating surfaces and work area of foreign materials resulting from operations.

3.6 PROTECTION

- A. Provide protection of installed materials from water infiltration into or behind them.
- B. Provide protection of installed deck from dust, dirt, precipitation, and freezing during installation.
- C. Provide protection of installed finish from dust, dirt, precipitation, freezing and continuous high humidity until fully cured and dry.
- D. Clean exposed surfaces using materials and methods recommended by the manufacturer of the material or product being cleaned. Remove and replace work that cannot be cleaned to the satisfaction of the Project Designer/Owner.

END OF SECTION

Disclaimer This guide specification is intended for use by a qualified designer. The guide specification is not intended to be used verbatim as an actual specification without appropriate modifications for the specific use intended. The guide specification must be integrated into and coordinated with the procedures of each design firm, and the requirements of a specific project.

NOTES



Mer-Thane 300SF Specifications

CSI SECTIONS 07 14 16
CSI SECTIONS 07 18 13

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.



Corporate Office
ParexLahabra, Inc.
4125 E. La Palma Avenue, Suite 250
Anaheim, CA 92807

(714) 778-2266
(866) 516-0061
infomer-ko@parexlahabra.com
www.parexmer-ko.com

MEMBER OF



SWA
INSTITUTE
Soil and Water
Remediation & Restoration Institute