### MAPETHENE™ LT60

# POST APPLIED SELF-ADHERED WATERPROOFING MEMBRANE FOR BELOW GRADE STRUCTURES AND ELEVATED DECKS

#### **PRODUCT DESCRIPTION**

The specialized formulation combines a rubberized adhesive with an HDPE layer to act as a barrier against moisture, water and gas. Mapethene LT60 membrane is suitable for installations where the ambient temperature is between 25°F-60°F (-4°C-16°C). See Mapethene HT60 for high temp applications.

#### **FEATURES AND BENEFITS**

- Cold applied without using flames
- Factory controlled thickness
- Low temperature applications
- Highly flexible; simple, quick and easy to apply
- Self-adhesive overlaps and excellent adhesion to various substrates
- Elastomeric, can accommodate concrete shrinkage
- Excellent chemical resistance and protection against gas vapor intrusion

#### **SYSTEM COMPONENTS**

- Mapethene LT 60, post-applied waterproofing membrane
- Mapeprime S710, low VOC solvent based adhesive primer for use above 25°F (-4°C) and on green and damp concrete
- Mapeprime 720 W, water based adhesive primer for use above 40°F (4°C)
- Mapeproof Liquid Membrane, trowel grade liquid detailing accessory
- Mapedrain HS, high strength, high flow drainage board and protection course
- Mapestrip 25, expanding rubber waterstop for watertight joints and transitions

#### **TECHNICAL DESCRIPTION**

Property	Test Method	Result
Thickness (mm)	ASTM D3767 Method A	1.5mm (60 mil)
Resistance to Hydrostatic Head	ASTM D5385	Pass, 71 m
Flexibility, 180° bend over 25 mm (1") mandrel at -32°C (-25°F)	ASTM D1970	Unaffected at -32°C
Crack Cycling at -32°C (-25°F), 100 Cycles	ASTM C836	Unaffected at -32°C
Tensile Strength, Membrane, Die C	ASTM D4121	325 psi (2.2 MPa)
Tensile Strength, Film	ASTM D8821	5000 psi (34.5 Mpa)
Elongation, Ultimate Failure of Rubberized Asphalt (%)	ASTM D4121	300
Lap Shear	ASTM D1002 <sup>2</sup>	20 lbf
Lap Adhesion @ -5C	ASTM D1876	5 lbf/in (875 N/m)
Peel adhesions to concrete	ASTM D903	9 lbf / in (1575 N/m)
Puncture resistance	ASTM E154	50 lbf (222 N)
Permeance	ASTM E96, Section 12 - Water Method	<0.02
Water Absorption	ASTM D570	<0.02%
1 The test is run at a rate of 50 mm (2 in.) per minute 2 The test is run at a rate of 102 mm (4 in.) per minute		

#### **STORAGE AND SHELF LIFE**

Mapethene LT60 may be stored for 12 months in its original packaging between 40°F–90°F (4°C–32°C).

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#### **PRODUCT DATA**

Roll Size 3' × 66.7'	$(0.9 \text{ m} \times 20.3 \text{ m})$
Coverage	$.200 ft^{2} (18.6 m^{2})$
Weight per roll	71 lb (32.2 kg)
Rolls/Pallet	12

#### WHERE TO USE

- Below grade foundations walls
- Horizontal decks
- Tunnels
- Balconies

#### **PRODUCT CODES**

MTLT60367



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#### **LIMITATIONS**

- Not intended for permanent UV exposure
- Do not install over insulation or lightweight insulting concrete
- Do not use form release agents that transfer to the concrete
- Avoid the use of curing compounds that contain wax, oil or pigments
- Not for use as a pool or containment tank lining

#### SURFACE PREPARATION

- May be applied on concrete, CMU and wood.
- Substrates must be flat, sound and clean. Remove any laitance, loose aggregate, traces of dust, grease and form release agents. Remove form match lines and repair all form-tie holes, poorly consolidated areas and voids greater than 0.5" (13 mm) in width must be repaired with a latex Portland cement, concrete or epoxy mortar. Sharp edges on corners should be rounded off or ground down.
- All concrete surfaces must be cured for a minimum of 7 days for normal weight structural concrete and 14 days for lightweight structural concrete. For applications on concrete over non-vented decking, cure times will be longer. Weather and time in forms may also increase cure/dry time prior to Mapethene LT60 application.
- CMU substrates should be finished with full and flush mortar joints or parged to bring mortar joints flush with the face of the CMU.
- After preparing the substrate as specified, apply Mapeprime S710 or 720 W adhesive primer, depending on temperature and application. Refer to applicable Mapeprime Technical Data Sheets for additional application instructions.

#### **PRODUCT APPLICATION**

#### **TEMPERATURE**

Mapethene LT60 should be installed in dry conditions where the ambient temperature is between 25°F-60°F (-4°C-16 C). See Mapethene HT60 for high temperature applications.

#### **CRACK AND JOINT TREATMENT**

- All non-structural cracks in the concrete substrate less than ½" (3 mm) wide and all concrete cold joints should be prestripped with a 6" (150 mm) wide piece of Mapethene LT60 prior to the installation of the field membrane.
- All horizontal to vertical transitions or inside corners are to be treated with a <sup>3</sup>/<sub>4</sub> fillet of Mapeproof Liquid Membrane prior to the installation of Mapethene LT60.

#### **HORIZONTAL INSTALLATION**

 Apply on horizontal decks with a minimum slope of 1/8 in/ft (11 mm/m) to drain. If 1/8 in/ ft (11 mm/m) slope cannot be achieved, contact Polyglass Technical Service for additional details.

- When applying the membrane on horizontal surfaces, remove the first 9" (23 cm) of release liner, line up the roll in the direction it is to be applied and unroll the Mapethene LT60. Remove the release liner as you unroll the membrane so that it adheres evenly to the prepared substrate working from the low to the high point in a shingled fashion.

  Overlap all side and end laps by a minimum of 2.5" (64 mm). End laps are to be staggered and roll the entire surface of the Mapethene LT60 with a rubber roller.
- Mapethene Liquid Membrane must be used to seal all seams or laps within 12" (300 mm) of a deck to wall/curb condition or any 90 degree change in plane, along with all terminations and T-joints.
- Outside corners are to be pre-stripped with a 9" (23 cm) piece of Mapethene LT60, prior to installing the field of the membrane.

#### **VERTICAL INSTALLATION**

- When applying the membrane on vertical surfaces, working with convenient lengths no greater than 10 ft is recommended. Remove approximately 9", (23 cm) of release liner, line up the sheet according to the direction it is to be applied and adhere to the prepared substrate ensuring all horizontal overlaps are water shedding. Overlap all side and end laps by a minimum of 2.5" (64 mm). End laps are to be staggered and roll the entire surface of the Mapethene LT60 with a rubber roller.
- Terminate all end of day, top and bottom of wall terminations, and all T-joints of Mapethene LT60 with Mapeproof Liquid Membrane. A termination bar sealed with Mapeproof Liquid Membrane can be used as an alternative means of termination at the top or bottom of the wall.
- Outside corners are to be pre-stripped with a 9" (23 cm) piece of Mapethene LT60, prior to installing the field of the membrane.
- Refer to Polyglass standard details drawings for additional installation instructions and system requirements for both horizontal and vertical installation.



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#### PROTECTION AND BACKFILLING

- On horizontal applications within 24 hours of applying Mapethene LT60 protect all waterproofed surfaces with Mapedrain HS, Minimum 1" (25 mm) rigid insulation or ¼" (6 mm) asphaltic hardboard per design. Vertical walls should be protected as noted above as soon as possible to prevent trade damage and should not be exposed to UV for more than 14 days.
- Backfilling should be completed by adding and compacting in 6" (150 mm) to 12" (300 mm) lifts. Use caution when adding backfill and compacting to ensure the protection course or Mapethene LT60 is not damaged.

#### **MEMBRANE REPAIR**

Repair damaged membrane by removing any loose or unadhered Mapethene LT60 from the damaged area ensuring the surrounding membrane is clean and dry. Any exposed concrete would need to re-primed with the original Mapeprime primer that was used and allowed to dry. Install a patch of Mapethene LT60 extending 6" (150 mm) past the damaged area in all directions. Seal all edges of the patch with Mapeproof Liquid Membrane.

#### **LEAK DETECTION**

Conventional flood testing or electronic leak detection for horizontal applications if specified can be conducted 24-hours after application.

#### **CORPORATE HEADQUARTERS**

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#### **Product Disclaimer:**

For professional use only.

Unless otherwise incorporated into or part of a supplemental manufacturer's warranty, Polyglass warrants its product(s) against manufacturing defects in its product that directly results in leakage for a period of 1 year. Refer to safety data sheet (SDS) for specific data and handling of our products. All data furnished refers to standard production and is given in good faith within the applicable manufacturing and testing tolerances. Polyglass U.S.A., Inc., reserves the right to improve and change its products at any time without prior notice. Polyglass U.S.A., Inc. cannot be held responsible for the use of its products under conditions beyond its own control. For most current product data, detail drawings and warranty information, visit www.polyglass.us

