TL-0026 — BITUTHENE® Membrane Terminations Technical Letter (US Version)

General

Successful waterproofing projects depend on the quality of the termination detail. This technical letter reviews recommendations for location of membrane terminations and provides recommendations on use of BITUTHENE® Mastic, BITUTHENE® Liquid Membrane and termination bars as means to terminate the BITUTHENE® Membrane

Termination Design Considerations—Termination Location

From a pure waterproofing perspective, the best termination design is when the BITUTHENE® Membrane is terminated above finished grade level. Or, in cases of plaza decks waterproofing or PRMA application where the BITUTHENE® is used as the waterproofing membrane, the BITUTHENE® membrane shall be terminated above the level of the finished deck material. In these situations, the leading edge shall be detailed with BITUTHENE® Liquid Membrane and the exposed BITUTHENE® Membrane shall be protected from damage and ultraviolet exposure. Protection of the membrane can be either though extension of the wall cladding system over the membrane or the inclusion of a surface mounted weather resistant flashing such as copper, aluminum or neoprene. Many times however, project conditions or project aesthetics may not allow for termination above grade and the membrane is therefore terminated below the finished grade level. In such cases, areas above the termination are exposed to water and weather, such as where water may saturate the substrate, enter the structure through cracks above the membrane or directly attack the termination detail itself. Understanding the need for termination below the finish grade level exists; GCP's details have been designed accordingly. They work well in these conditions, but only protect areas covered by the membrane.

Reviewing the waterproofing details in the design phase and incorporating our design recommendations into the wall or deck assemblies can often minimize such concerns. This is a valuable service we can provide to the design community.

Specific to type of termination details, GCP provides options depending on application and performance level required. Specific site conditions and applications will dictate the appropriate termination detail.

All terminations:

- Press membrane firmly at all terminations with a steel roller.
- Seal with adequate amounts of BITUTHENE® Mastic or BITUTHENE® Liquid Membrane.

BITUTHENE® Mastic:

- Apply with caulking gun or trowel.
- Use when termination will be exposed to intermittent amounts of water or behind flashing.
- Apply 1/8 in. (3 mm) thick x 2 in. (50 mm) wide, center on edge of membrane.

BITUTHENE® Liquid Membrane Termination:

- Use when termination will be exposed to water.
- Mix properly according to instructions.
- Apply with bulk gun or trowel.
- Apply 1/8 in. (3 mm) thick x 2 in. (50 mm) wide, center on edge of membrane.
- Minimum recommendation for terminations in planters.

BITUTHENE® Liquid Membrane and Termination Bar:

- Recommended for terminations on CMU, in planters, earth covered decks, and in earth bermed applications when soil cannot be fully compacted.
- Use 1/8 in. x 1 in. (3 mm x 25 mm) min. x 10 ft (3.05 m) max. aluminum bar.
- Align bar with top of membrane.
- Fasten 12 in. (305 mm) O.C. or as necessary to ensure continuous compression and 1 in. (25 mm) in from end of all sections.
- Separate adjoining bars by 1/4 in. (6 mm).
- Diameter of holes in bar should be 10% larger than shank of fastener.
- Seal top of bar and penetration heads with BITUTHENE® Liquid Membrane.

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gcpat.com/solutions/products/bituthene-post-applied-waterproofing/tl-0026-bituthene-membrane-terminations