Between the World and the Weather Since 1928

Application Instructions

ram-Tough 250
Double Membrane (DM-PS) System
On Vertical Surfaces

Many application techniques are employed when installing vertical waterproofing with ram-Tough 250. The various site/job conditions will dictate what procedure is best suited for any particular application.

In deep below-grade excavations, application is generally made with a procedure of waterproofing to a set height (5-8 feet is typical) and then backfilling the area, stabilizing the soil, and waterproofing again in "lifts". Working on scaffolding is not recommended due to the nature of the application.

It is imperative that all site conditions comply with OSHA requirements for a safe work environment. Cave-ins, landslides, tripping, falls, and burns are among the many hazards that exist with improper conditions. It is the contractor's duty and obligation to know what is required and provide those conditions.

There are four basic application techniques that are commonly used for vertical applications:

* Drywall Screed
* Caveman Technique
* Asphalt Roller Mop
* Spray Application

The individual applicator must decide which technique will provide the safety, productivty, and application quality desired in conjunction with the particular site conditions. Workman skill level and other variables that exist on any individual jobsite should influence the final decision. If any questions exist, consult with local OSHA offices for safety issues and the Barrett Company for details.

After determining the appropriate application technique and following all deck preparation and priming procedures noted in the ram-Tough 250 Application Instructions, install first layer of hot fluid-applied ram-Tough 250 to substrate at a minimum thickness of 125 mils (1/8 inch). Use multiple pass application if required to develop sufficient thickness. Vertical Installation pass widths should be approximately 40 inches wide.

Using ram 400 PS sheeting, precut to application length, install sheet into warm and tacky ram-Tough 250. Apply from the top edge of the wall (or application height) in a downward direction so that the tack side is to the ram-Tough 250 surface. Using a hard 3 inch wide roller, roll the sheet downward in the center of the sheet working outward towards the edges. Roll the entire membrane surface. The complete waterproofing system should come down the wall and over the footing and footing face.

As the application proceeds, remove the zip strip from the preceding sheet of ram 400 PS and install second pass of 40 inch wide application of RT250. Take next precut sheet, align overlap, and press into ram-Tough 250 and again roll each sheet from the center of the sheet in a downward direction. Pay particular attention to rolling the overlap area.

Apply ram-Tough 250 or ram Mastic in a thick bead at the top edge and bottom edge of the applied membrane after release film is removed. All end laps shall be a minimum of 6 inches and shall be placed so that water runs over or parallel to them, never against the lap.

Remove outer release film the same day the sheet is applied and complete the installation of membrane cover (drainage mat, insulation, neoprene sheeting, EPS drainage board, etc.).

FLASHINGS

Areas around pipe, conduit, or other protrusions must be wire brush clean to bright metal finish, primed and primer dried tack free. Pre-measure and precut neoprene flashing material to fit flashing condition, a minimum of 6 inches in both directions from the change in plane. Coat entire surface with 90 mil layer of hot rubberized asphalt and embed the neoprene into the hot ram-Tough 250 material. Firmly embed the neoprene in the ram-Tough 250, working out all air bubbles and wrinkles. The neoprene is an uncured material and will conform to irregular shapes. No neoprene flashing shall be unsupported from a substrate or "bridging" over any gaps. After neoprene is fully embedded, overcoat area with 125 mil layer of hot ram-Tough 250. Using the same pattern cut, but offset, install ram 400 PS sheet, overlapping the neoprene sheet by minimum 3 inches, over the flashing condition. Seal all open seams with ram-Tough 250 or ram Mastic.

EXPANSION JOINTS

Contact Barrett Technical Services for vertical expansion joint detailing and installation.

DRAINAGE MEDIUM AND FOOTING DRAINS

Any successful waterproofing application requires adequate drainage medium and design. ram Drain mats are one of many drainage mediums available. ram Drain mats have the advantage of being a part of the ram-Tough warranty system.

Waterproofing installations without adequate drainage systems are not warrantable nor are they recommended. Please refer all questions to Barrett Technical Services.

SUMMARY

As with any successful waterproofing application, the condition of the substrate is extremely critical. Clean, dry, firm, no contaminants, rust, oil, wax, pigmented curing or form release agents, no frozen decks, and a safe working environment are absolute necessities.

ram 400 PS shall be stored in an environment between 50ºF-90ºF and not removed until ready for application within an hour. Do not install ram 400 PS below 40ºF (the ram-Tough 250 can be installed to 0ºF). Do not attempt to install over frost or dew laden surfaces. Primed surfaces that become contaminated with dust must be reprimed.

Perform thickness and adhesion tests at least once an hour. If adhesion test indicates a problem, do not proceed with any work until the cause of the problem is determined and corrected.

In order to prevent damage to the waterproofing, protection course, and drainage, insulation board should be applied and backfilling completed as soon as possible. Monitor the backfilling process to ensure that no damage is done to the waterproofing by the backfilling operation. Hand-placed backfill is preferred to machine backfill. Avoid large rocks and other debris, which could damage the waterproofing system components. Report any damage immediately to the contractor and owner before it is covered.

Any questions can be referred to Barrett Technical Services at (800) 647-0100.

Updated 9/14/16