

Ground Gas Membrane: Pro M1 - Installation Guide

INTRODUCTION

Delta Membrane Systems Limited's Pro M1 Gas Barrier is a flexible loose laid proprietary gas barrier for use against Radon, Methane, Carbon Dioxide and other ground gases and contaminants. Refer to Pro M1 Data Sheet and BBA certification for full product details and technical information.

SITE PREPARATION

The Pro M1 Gas Protection Membrane should be laid on either: sand blinding, Memtech Protech Geotextile Protection fleece or smooth concrete finish. All sharp angular protrusions should be removed prior to installation of the Pro M1. Where Pro Liquid Gas Barrier "LGB" is being used to detail around stanchions, column bases, service penetrations, these should be detailed prior to the installation of the Pro M1 Gas Membrane, a minimum 100mm band of the Memtech LGB should be left exposed to provide a suitable overlap area for the Pro M1. See Pro LGB Product Data Sheet and Installation Guide for details.

INSTALLATION

Roll membrane out over the prepared surface with the black colour surface uppermost. Roll the next roll out parallel to the first, overlapping a minimum 100mm, the Pro M1 Membrane has a dashed line on the surface to indicate minimum overlap width. The joints between the two sheets should be joined using either Gas Tape 50 (50mm gas sealing tape) or heat welded. Heat welding is industry preferred method for joint sealing and should be conducted by suitable trained operatives. For sealing joints using the Gas Tape 50, the Pro M1 Membrane should be wiped clean of any loose debris and dust. Install the double-sided Gas Tape 50 along a line mid width of the overlap.

Press firmly on to the Pro M1 Membrane. Remove the backing paper from the Gas Tape 50, sealing tape and overlap the second sheet of Pro M1 Membrane and press firmly on to the sealing tape area. Use a 40mm silicone roller to remove any trapped air, creases, or air bubbles from the sealed joint. When sealing Pro M1 Gas Barrier Membrane to the Pro Liquid Gas Barrier, the overlap should be a minimum 100mm. Apply Gas Tape 50, sealing tape to mid width of overlap, press firmly onto the Pro LGB application. Remove the backing paper from the Gas Tape 50, sealing tape and overlap the Pro M1 Membrane and press firmly on to the sealing tape area. Using a 40mm silicone roller remove any trapped air, creases, and air bubbles from the joint.



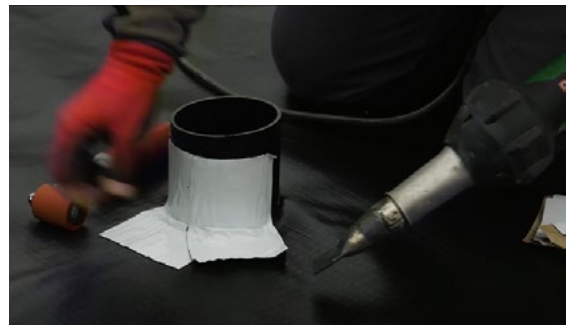
Apply Gas Over Tape 50 (foil backed Gas over-tape) to the edge joint between the Liquid Gas Barrier and Pro M1 membranes. To heat weld joints, overlap the two sheets of Pro M1 Membrane by minimum 100mm, using a suitable heat gun. Lift one edge of membrane and run the heat gun slowly along, pressing the other sheet firmly onto the joint and press seal with a roller.

PATCH REPAIRS

Where the membrane has been punctured or torn, wipe clean the area to a minimum 150mm around the tear/hole. Cut a 150mm x 150mm square of Gas Over Tape 150 (foil backed Gas over-tape), remove release paper from back of tape and apply directly over the hole/tear. Press firmly into place using a silicone roller, removing all air, creases, and air bubbles from the repair patch.



For larger tears/holes, clean the area around the hole/tear to a minimum 150mm around the hole/tear. Cut a section of Pro M1 Membrane to size, minimum 150mm overlap required to area affected. Apply either Gas Tape 50 (50mm gas sealing tape) to overlap area and seal "Pro M1 Membrane patch" to this, ensuring a sound air and crease free seal by using a silicone roller.



Alternatively heat weld joints of Pro M1 Membrane patch to Pro M1 Membrane taking care not to damage further the original Pro M1 Membrane installation. Patch repairs should be conducted as soon as the hole/tear or puncture is noted.

STANCHION DETAIL

To base of stanchion extending 150mm to the surround and a minimum of 150mm up the stanchion apply two coats Pro Liquid Gas Barrier in accordance with Pro LGB Product Data Sheet. Cut the Pro M1 Membrane to fit around the base of the stanchion. Ensuring surfaces of both Pro M1 Membrane and Pro Liquid Gas Barrier are clean and free of dust and debris. Seal the two elements together using the Gas Over Tape 150 (foil backed gas over-tape), lapping a minimum 75mm to each. Press and seal the elements together using a silicone roller, to remove air, creases, and air bubbles from the sealed joint.



SERVICE / PIPE PENETRATIONS

Details as per stanchion base above.



For further assistance please contact Delta's Technical Team.

References: Delta "How To" videos Guides
<https://www.deltamembranes.com/technical-categories/the-video-suite/>

