

GUIDANCE ON MEMBRANE GUTTER THICKNESS



MGMA Information Sheet No 07

November 2011

Structural membrane lined gutters have been used in the roofing and cladding industry for over 30 years. It has only been in the last 5-10 years that the volume has overtaken traditional bolted gutter systems. This is due to a number of reasons, but primarily the reduction in risk relating to water ingress at or about the gutter position. Issues such as siphonic design, eaves purlin tolerances, workmanship, drainage design and the lack of maintenance in terms of the cleaning of gutters to ensure all outlets are clear and allow free flow of rainwater.

When membrane lined gutters were first introduced, they were originally classified as a 'lick and stick' method which proved difficult in establishing leak points should a pin hole occur. Today, most if not all are pre-laminated, eliminating issues with small scrapes, scuffs etc. The thickness of the membrane is critical at this point; the minimum thickness criteria for pre-laminated membrane thickness should be 1.2mm. This specification thickness negates the risk associated due to foot traffic and the resulting abrasion to the membrane.



Thin gauge steel and the deflection

Membrane thicknesses as thin as 0.6mm have been specified and can prove extremely difficult to install and weld. This thickness increases unacceptable risk, either in building use or during the welding process on site.

The MGMA was invited to a Single Ply Roofing Association (SPRA) meeting to discuss the issue of membrane



A 0.6mm thin membrane

thickness on industrial insulated and un-insulated gutters. It concluded that the single ply membrane thickness should be no less than 1.2mm.

A SPRA Quality Standard document was issued late 2010 highlighting their recommendations, which can be downloaded [here](#).

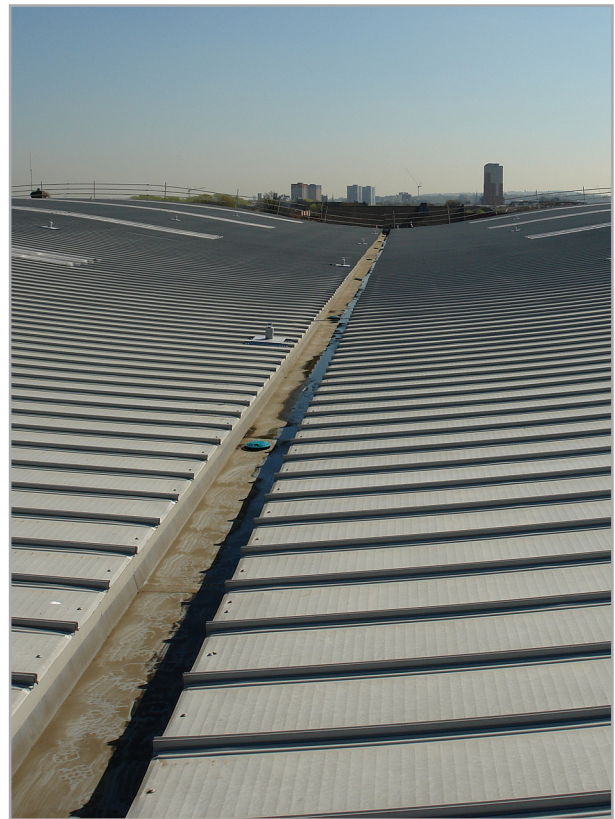
Thickness of steel substrate must be considered when specifying membrane lined gutters. Whether single skin or insulated, they should be adequately supported structurally to allow for foot traffic, snow loads etc both pre and post construction. MGMA therefore recommends that a minimum 1.2mm galvanised steel substrate should be specified as a minimum for walkability, safety and serviceability.

Following on from the issue of self-supporting gutters, larger gutters will require additional structural support, in the form of continuous edge/side/base support, but will be required to be considered during design for anything over 400mm sole / 1000mm girth, based on the aforementioned 1.2mm substrate / 1.2mm membrane, or 500mm / 1250mm girth for 1.5mm thick substrate.



Good installation, prior to siphonic outlet inlets being installed

Generally, gutter guarantees vary from 10 years to 25 years, depending upon manufacturing process and materials selected. It is important to note that these guarantees are affected by the lack of a maintenance and inspection regime. Gutters that are not cleaned regularly will degrade quickly due to a build-up of debris such as grit, bird carcasses, plastic bags and a myriad of varying plants and trees etc.



Valley gutter

Depending on the location and surrounding topography, gutters should be cleaned once or twice a year.

Please note two simple tools are required. A soft bristled brush and a plastic shovel to collect the debris.

Note: The guarantees will be nullified if a maintenance and inspection regime is not implemented.

Visit our web site

At www.mgma.co.uk you can contact MGMA members and discover the products and services available. Members are only too pleased to help with any problems you have and can provide design assistance should you need it.

Whilst the information in this data sheet is believed to be correct at the time of going to press, the Metal Gutter Manufacturers Association and its member companies cannot be held responsible for any errors or inaccuracies and, in particular, the specification for any application must be checked with the individual manufacturer concerned for a given installation.

Metal Gutter Manufacturers Association

106 Ruskin Avenue
Rogerstone Newport
South Wales
NP10 0BD

01633 891584
mgmagutters@gmail.com
www.mgma.co.uk

