

Liquid GM

High Performance Elastomeric Liquid Rubber Gas Membrane

DESCRIPTION

RIW Liquid GM is a single component water based compound, formulated on styrene-butadiene co-polymer. The product is a high performance elastomeric liquid rubber membrane, which only requires stirring to form the ideal product to provide a waterproof and gas proof, liquid applied, methane and carbon dioxide barrier.

TYPICAL USES

RIW Liquid GM is specifically designed for a range of vertical and horizontal surfaces, generally as follows :

- Applied to walls, floors or soffits.
- As a retro applied gas proof membrane to concrete, masonry and brick substrates.
- As an alternative to sheet membranes in new construction.

When designing Type A structures (as classified in BS 8102 : 2009), the product applied correctly is capable of providing the levels of protection required for Grades 1, 2 & 3 basements.

ADVANTAGES

- The product also has good chemical resistance to gasoline, sodium hydroxide, calcium chloride, de-icing salts and effluent.
- Excellent adhesion, fully bonds to porous and non-porous substrates.
- Rapid drying. In good conditions, two coats can be applied in the same day.
- Easily applied by brush, roller or airless spray.
- Can be applied to damp and 'green' substrates.
- Flexible and Non-toxic when cured.
- Will withstand temporary light trafficking.
- Easily repaired by locally over-coating.
- Can be painted, plastered or screeded over.

DURABILITY

Subject to normal conditions of use, RIW Liquid GM will provide an effective barrier to methane and carbon dioxide gasses, water and water vapour for the life of the structure.

PERFORMANCE & COMPOSITION

TECHNICAL DATA	
Form	Thixotropic blue / grey liquid
Colour ; when dry	Black
Specific gravity	1.4
Number of coats	Two (2)
Coverage*	1 st coat = 0.5 litres / m ² 2 nd coat = 0.7 litres / m ²
Coverage for two coats	0.85m ² / litre
DFT of coating	0.7mm for two coats
Curing time	Touch dry : 30 – 60 minutes 24 - 48 hours : full cure
Overcoating time	90 - 120 minutes after 1 st coat
Application temperature limits	5 - 35° C
CURED PROPERTIES	
Adhesion to concrete	> 1.1 N / mm ²
Elongation ASTM D2370	> 100 %
Water penetration	3.0 bars – no penetration
Methane permeability	< 1.40 x 10 ⁻¹²
uv. resistance	Good

* Dependent upon application rate and product surface porosity.

The above performance figures are typical values and should not be considered a product specification.

SPECIFICATION

J30 – Liquid Applied Tanking / Damp Proofing in accordance with NBS Clauses.

Please consult RIW Limited for further information.

INDEPENDENT AUTHORITY

Tests carried out by the Technology Centre show that RIW Liquid GM will provide a barrier to methane and carbon dioxide.

A copy of their report is available upon request.



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ANCILLARY PRODUCTS

RIW Cementfill FC – Cement based waterproof fairing coat and repair mortar for filling minor holes, voids and defects.

RIW Cementfill HB – Cement based waterproof high build repair mortar for profiling and providing fillets.

RIW Reinforcing Scrim – a material for embedding in the coating, used to reinforce joints, etc.

RIW Sheetseal GR – Compatible self-adhesive sheet, for flat open areas, if preferred.

CONSTRUCTION / APPLICATION

GENERAL

All construction should conform with the Building Regulations, Codes of Practice and British Standards in current use at the time the building is constructed.

PREPARATION

All surfaces: Should be clean, free from dust and loose material, oil, paint, fungal growth, etc.

Non-structural cracks, less than 0.5mm wide, must be filled. Structural cracks must first be repaired and filled.

The substrate must be sound and ideally present a smooth face. Fill holes and re-point flush to the finish, using RIW Cementfill FC or HB to suit

Old repairs must be inspected and re-repaired if necessary. Remove fins and snots as necessary.

Newly laid concrete should have a clean textured surface with 45° fillets at internal angles. Use RIW Cementfill HB to provide fillets where required.

MIXING

RIW Liquid GM is supplied ready for use. The product requires agitation using a slow speed paddle mixer.

Mix carefully for 5 minutes before use. If containers are stored for more than 2 hours after opening, re-agitate.

Do not add water.

SURFACE PREPARATION

Pre-dampen (not wet) the substrate before applying the first coat.

Interface with other media

For expansion joints, ensure that RIW Liquid GM is applied well into the rebate before the expansion media is applied.

Other gas membranes must be exposed and lapped with where present.

Dealing with cracks

Cracks must be stabilised as necessary, and filled.

Apply RIW Liquid GM along the line of the crack, at a rate of 0.3 litres / m², with the RIW GM Scrim fully embedded within it. Then apply the main coating system, as stated below.

APPLICATION OF THE MAIN COATING SYSTEM

The product can be applied by stiff brush, roller or airless spray with a minimum 17/1000 of an inch (17 thou.) nozzle. The spray method is especially suitable for less accessible locations and uneven substrates.

The first, primer, application is applied at the minimum rate of 0.5m² / litre. Ensure that the coating is even and use a circular action when spraying. Allow the primer coat to dry before applying the second coat.

Apply the second coat at the rate of 0.7m² / litre, at right angles to the first coat, using a similar application method.

Do not apply over bitumen.

The total application thickness must not exceed 4mm if splitting or cracking is to be avoided.

CLEANING

All tools should be cleaned with water immediately after use.

SAFETY

Full health and safety instructions are contained on the product material safety data sheets and these must be referred to before use.

SUPPLY

AVAILABILITY

All RIW products can be obtained through Builders Merchants or approved stockists. A list of approved stockists is available from RIW Ltd's offices.

PACKAGING

RIW Liquid GM	20 litre container
RIW GM Scrim	100mm x 10m long rolls

STORAGE

RIW Liquid GM must be stored at room temperature (minimum 10° C and max 30° C), and kept dry.

Protect from freezing and direct sunlight.

If these conditions are maintained, and the product packaging is unopened, then a shelf life of 12 months can be expected.

TECHNICAL SERVICES

The RIW Technical Department is available to advise on individual projects and to prepare and assist in the preparation and specifications and drawings. A list of experienced applicators of RIW materials is available from RIW Ltd's offices.

The information in this literature was correct at the time of going to press. However, we are committed to continually improving our products and reserve the right to change product specifications. For the latest information, please consult RIW Limited. Conditions of use are beyond our control, therefore we cannot warrant the results to be obtained.