GAS RESISTANT BARRIER SYSTEM BY MARLEY WATERPROOFING

INTRODUCTION

Marley Waterproofing Gas Resistant Barrier System consists of Marley Gasgard DPC and Marley GasSeal DPM, providing an effective barrier within the cavity and floor or basement construction against Methane, Carbon Dioxide and Radon.

INDEPENDENT APPROVAL

Marley Waterproofing Gas Resistant Barrier System has been independently approved by the British Board of Agrément and a copy of the relevant certificate, number 97/3353, is available on request.

MARLEY GASSEAL

DESCRIPTION

Marley GasSeal is a high performance gas resistant damp proof membrane, which forms an effective barrier within the floor or basement construction against Methane, Carbon Dioxide and Radon gases.

Marley GasSeal is comprised of a top layer of polyolefin laminated to an aluminium/polyester foil which is then coated with a layer of rubberised bitumen adhesive protected by a siliconised release backing

PERFORMANCE BENEFITS

The thick aluminium/polyolefin/polyester top layer and bitumen adhesive backing provide an effective barrier against penetration by water, water vapour, Methane, Carbon Dioxide and Radon gases.

MANUFACTURE

Marley GasSeal is manufactured under a closely controlled quality system which satisfies the needs of ISO 9002. The product wrapper indicates the product name, the Agrément certificate number, batch code and product code.

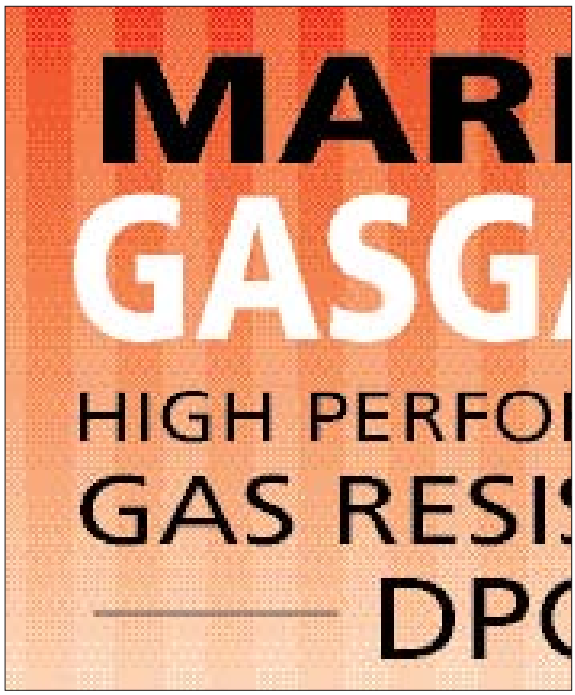
USES

Marley GasSeal is used as a gas resistant membrane where the construction conditions necessitate the prevention of Methane, Carbon Dioxide and Radon gases from permeating into the structure of a building.

When used in conjunction with Marley Gasgard, gas resistant damp proof course, a continuous barrier against the ingress of water and water vapour, Methane, Carbon Dioxide and Radon gases is formed. No additional damp proofing measures are therefore required.

COMPATIBILITY

Marley GasSeal is compatible with most materials normally associated with the damp proofing of structures. Marley GasSeal is fully compatible with Marley Gasgard gas resistant DPC.



NOMINAL DIMENSIONS AND WEIGHTS

Description	Product Code	Roll Length (m)	Roll Width* (mm)	Thickness (mm)	Weight (kg/m²)
GasSeal	343420	19.05	1050	1.5	1.7
Marley Gasgard Jointing Strip	343705	20	50	1.5	1.72

*Standard roll width sizes as stated in the price list, however, custom sizes are available subject to volume.

TYPICAL TEST VALUES

Typical Physical Properties GasSeal		
Water Vapour Permeability at 25°C/75% RH (gm^{-2}/day^{-1}) (Test method BS 3177:1995)		0.1
Tensile Strength (N/50mm)		
BS 2782 320A	Longitudinal	250
	Transverse	225
Elongation at Break (%)		
BS 2782 320A	Longitudinal	200
	Transverse	200
Puncture Resistance (N)		
ASTM E154		250
Resistance to Water Pressure		
CD 5.1.4	Unjointed	No penetration
	Width 15mm Lap Joint	No penetration
Methane Gas Permeability ml/m^2/day (Wimpey Laboratories)		<0.03
Carbon Dioxide Permeability ml/m^2/day (RAPRA)		0.41
Radon Diffusion Coefficient (NRPB)		<$5x10^{-14}m^2/s$
Low Temperature Flexibility		-5°C
Application Temperature		>5°C
Resistance to Aggressive Salts Normally occurring in concrete		Good**

**When applied and used according to installation instructions.

INSTALLATION

Marley GasSeal is designed to act as both a damp proof membrane and a gas resistant barrier within the floor or basement construction.

Installation must follow normal good practice for damp proof membranes, as set out in BS 8102:1996 and relevant clauses of BS 8000:Part 4:1989.

Buildings on landfill sites should be constructed in accordance with BRE recommendations laid out in Report 212.

A ventilated void should be provided under the building to allow for the dispersion of gases external to the construction and Marley GasSeal used to prevent these gases from permeating through the floor structure.

Detailed advice on building design should be sought from the Building Research Establishment.

Marley GasSeal contains an aluminium foil interply to provide the gas barrier. Aluminium foil is subject to corrosion if subjected to alkaline (wet concrete) conditions.

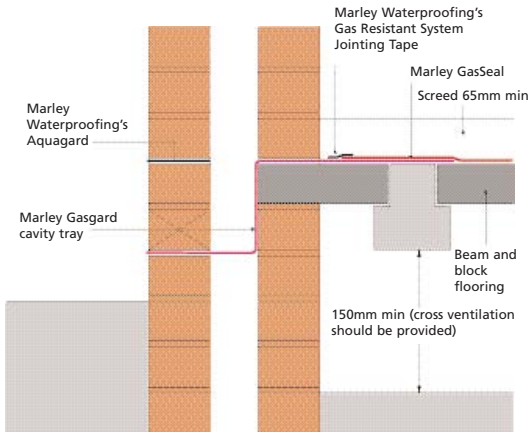
Installation in accordance with Marley Waterproofing's Fixing Instructions ensures protection from alkali attack.

For comprehensive instructions on installation, please refer to the Marley Waterproofing's Gas Resistant Barrier System Fixing Instructions to be found in the GasSeal packaging.

It is essential that Marley GasSeal is lap jointed with the Marley Gasgard cavity tray to ensure the continuity of the gas barrier.

All lap joints must be rolled or firmly pressed home.

Loading, either vertical or horizontal, should be applied immediately after installation, to protect the membrane. The use of Marley Waterproofing's High Performance Protection Board is recommended.



TYPICAL SECTION (For illustrative purposes only)

PREPARATION OF SURFACES

All surfaces to which Marley GasSeal is to be applied should have a smooth finish and be free from cavities, projections and mortar deposits. Damaged surfaces can be made good with sand cement mortar mix. Installation, including application of the primer, must not be carried out at temperatures below 5°C. Surfaces must be frost free, dry and free from dust and dirt.

On dusty or porous surfaces, the surface should be primed with Marley Waterproofing's Bitumen Primer. All vertical surfaces should be primed and left to dry thoroughly before applying the Marley GasSeal membrane.

MARLEY GASGARD

DESCRIPTION

Marley Gasgard is a high performance gas resistant damp proof course, which forms an effective cavity barrier against Methane, Carbon Dioxide and Radon gases.

Marley Gasgard is comprised of an impervious aluminium core reinforced with a tough hessian base coated with a polymer modified bitumen. The product is surfaced on both sides with a sand finish.

PERFORMANCE BENEFITS

The thick aluminium core and bitumen coating provide an effective barrier against penetration by water, water vapour, Methane, Carbon Dioxide and Radon gases.

MANUFACTURE

Marley Gasgard is manufactured on the Company's purpose built plant at Aylesham in Kent, under a closely controlled quality system which satisfies the needs of ISO 9001. The product wrapper indicates the product name, manufacturer's name and address, the Agrément certificate number, batch code and product code.

USES

Marley Gasgard is used as the damp proof course where the construction conditions necessitate the prevention of Methane, Carbon Dioxide and Radon gases from permeating into the structure of a building.

When used in conjunction with Marley GasSeal damp proof membrane, a continuous barrier against the ingress of Methane, Carbon Dioxide and Radon gases is formed.

COMPATIBILITY

Marley Gasgard is compatible with most materials normally associated with the damp proofing of structures, including liquid waterproofing membranes such as Marley Waterproofing's Superprufe. However, it may be softened by some solvent based products and these products should not be allowed to come into contact with Marley Gasgard.

NOMINAL DIMENSIONS AND WEIGHTS

Description	Product Code	Roll Length (m)	Roll Width* (mm)	Thickness (mm)	Weight (kg/m^2)
Gasgard DPC	see price list	8	see below*	3.5	4.0
Marley Gasgard Jointing Strip	343705	20	50	1.5	1.72

*Standard roll width sizes as stated in the price list, however, custom sizes are available subject to volume.

TYPICAL TEST VALUES

Tensile Strength N/50mm (Test Method BS 747 App B3)	Longitudinal	1075
	Transverse	765
Tear Strength N (Test Method BS 2739)	Longitudinal	155
	Transverse	135
Methane Gas Permeability		0.31ml/m^2/day
Radon Diffusion Co-efficient (NRPB)		<$10^{-13}$$m^2/s$
Carbon Dioxide Permeability (RAPRA)		0.20ml/m^2/day

STORAGE

Rolls of Marley Gasgard must be stored on end, on a flat surface, kept undercover and protected from mechanical damage, in accordance with good site material management.

Difficulty may be experienced unrolling Marley Gasgard at temperatures below 5ºC. This can be avoided by storing the material in a warm place prior to use.

INSTALLATION

Marley Gasgard is designed to act as both a damp proof course and a gas resistant cavity barrier when used as part of the Marley Waterproofing's Gas Resistant Barrier System.

Installation must follow normal good practice for the detailing of damp proof course, as set out in BS 5628:Part 3:1985 and the relevant clauses of BS 8215:1991 and BS 8000:Part 3:1989.

Marley Gasgard should be laid on a fresh, even bed of mortar, with all the joints in the cavity tray being heat sealed with minimum overlap of 100mm, followed by taping with Marley Gasgard Jointing Strip as explained in the Fixing Instructions.

The Marley Gasgard cavity tray must be lap jointed with Marley GasSeal, high performance self-adhesive gas resistant damp proof membrane.

When forming the Marley Gasgard cavity tray, ensure that it extends beyond the inner face of the internal wall by a minimum of 150mm onto the floor slab. Prior to jointing, blacken the extended region of Marley Gasgard with a gas gun.

Marley GasSeal must then be lapped by a minimum of 150mm onto the blackened Marley Gasgard. However, in 'head of roll' situations, or where Marley GasSeal has been cut exposing the aluminium foil, it is essential that the aluminium is protected from corrosion by the use of Marley Waterproofing's Gas Resistant System Jointing Tape as explained in the Fixing Instructions.

PRICING

Prices are available from our Builder's Merchant stockists, details of which are available from our Customer Services Department.

ORDERING

When ordering, reference should be made to the product code and table of standard roll sizes which can be found in the price list and Nominal Dimensions and weights section of this data sheet.

TECHNICAL SUPPORT

For further technical information, please contact the Technical Department on the telephone number given on the reverse of this data sheet.

Due to the policy of continuous development, Marley Waterproofing reserves the right to change specifications without prior notice.

marley waterproofing

Q05694
ISO 9001

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