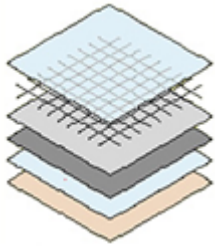


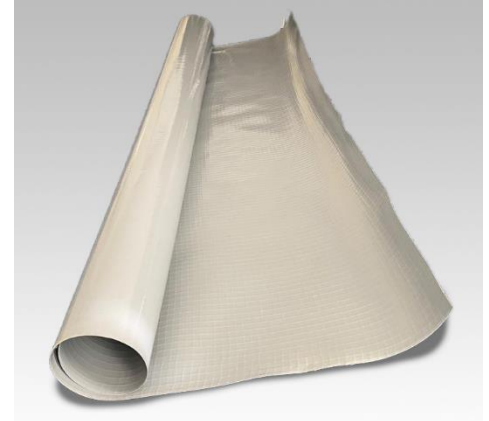
## Technical Data Sheet – Monarflex® RAC

(Rev. Mar 2023)

Methane, Carbon Dioxide, Radon and Volatile hydrocarbons – a robust high performance gas barrier, suitable for under slab application.



<b>Top layer</b>	LDPE with stabilizers, Grey
<b>Reinforcement</b>	12x12 mm Polyester multifilament 1670 dtex
<b>Coater Layer</b>	LDPE with stabilizers
<b>Aluminium</b>	Aluminium layer
<b>Coater Layer</b>	LDPE with stabilizers
<b>Bottom Side</b>	LDPE with stabilizers, Grey



- Exceptional flexibility and puncture resistance
- Comprehensively tested with independent validated test results
- Outstanding welding characteristics – efficient installation

### Description:

**Monarflex RAC** is manufactured from four layers of virgin low-density polyethylene (LDPE) with 12mm x 12mm polyester multifilament grid in between to give exceptional strength and tear resistance. The membrane incorporates a 12 µm aluminium foil for extremely low permeability to gases. It also acts as a high performance DPM. Both top and bottom surfaces are grey with a smooth finish.

The original gas barrier membrane, Monarflex RAC has been leading the market since the mid 1990's for high performance quality specific membranes in this sector. It is a multi-foil membrane with a reinforcing scrim and aluminium layer. RAC was originally developed to be welded with the unique extrusion welding system. However, it is equally easily joined by modern thermal welding machines.

### Applications:

**Monarflex RAC** is suitable for the following applications:

- Carbon dioxide and methane affected sites in accordance with BS8485:2015+A1:2019 & NHBC
- VOC affected sites
- Radon affected sites in accordance with BRE211:2015
- Damp protection in accordance with Building Regulations Part C.

### Approvals & Standards:

- BS8485:2015+A1:2019 – Code of practice for the design of protective measures for methane and carbon dioxide ground gases for new buildings. Passed the stringent methane 40ml/m<sup>3</sup>/day/atm (ISO15105-1 to BS8485:2015+A1:2019 requirement) threshold and physical property requirements.
- CE Mark EN13967 – Moisture Barrier Type A. Flexible sheets for waterproofing. Plastic and rubber damp proof sheets including plastic and rubber basement tanking sheet.



Agrément Certificate  
00/3668  
Product Sheet 2

## Technical Data:

Technical data	Unit	Value	Tolerance	Test method
Length	m	25	+1% -0%	EN 1848-2
Width	m	2	+/- 2%	EN 1848-2
Thickness	mm	0,8	+/- 10%	EN 1849-2
Weight	g/m <sup>2</sup>	800	+/- 5%	EN 1849-2
Straightness	Pass/Fail	Pass		EN 1848-2
Visible defects	Visible	No visible defects		EN 1850-2
Tensile strength	N/50mm	MD: > 800		EN 12311-1
		CD: > 800		
Elongation	%	MD: > 15		EN 12311-1
		CD: > 15		
Methane gas transmission	cm <sup>3</sup> (m <sup>2</sup> .d.bar)*	≤ 0.12		ISO 15105-1
Sd value	m	>1500m		EN 1931
Water vapour transmission	(m <sup>2</sup> .s.Pa)/kg	6,18x10 <sup>-14</sup>	4,68x10 <sup>-14</sup>	EN 1931
Nail tear resistance	N	MD: > 600		EN12310-1
		CD: > 600		
Resistance to static loading	N	Pass at 200N		EN 12730, Method B
Impact resistance	mm	250mm		EN 12691, Method A
Bitumen compatibility	Pass/Fail	Pass class W1		EN 1548
Joint strength tape	N/50mm	> 60		EN 12317-2
Joint strength welding	N/50mm	> 100		EN 12317-2
Water tightness to liquid water	kPa	Pass at 2 kPa		EN1928
Durability of water tightness against ageing	kPa	Pass at 2kPa		EN 1296
Durability of water tightness against chemicals	kPa	Pass at 2 kPa	.	EN 1847

\*a measurement in cm<sup>3</sup>/(m<sup>2</sup>.d.bar) is directly equivalent to one in ml/day/m<sup>2</sup>/atm

## System Components:

- PAG SAGR - Self Adhesive Gas Resistant Membrane
- PAG Cross Linked Butyl Sealant
- PAG Primer

(Please note that the membrane can be welded as a preferred alternative to using tape)

## NBS Specification:

Monarflex® RAC is specified using the following:

Clause: J40/145

Product: Monarflex RAC

Supplier: PAGeoTechnical Ltd, Darwin House, Corby Gate Business Park, Corby, NN17 5JG.

## Roll Sizing & Weight:

2m x 25m (50m<sup>2</sup>)

40 kg - hence appropriate care and equipment is required for unloading and handling.

## Storage and Handling:

Classified as non-hazardous when used in accordance with the relevant British Standards. The product is chemically inert and is not affected by acids and alkalis that may be present in the sub-soils.

Rolls are wrapped individually in shrink-wrap polythene. Each roll bears a product description label. Rolls should be stored on their side, under cover and on a flat, level surface, and protected from mechanical damage and heat sources. During storage exposure to direct sunlight is to be avoided.

PAGeoTechnical Ltd, Darwin House, Corby Gate Business Park  
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