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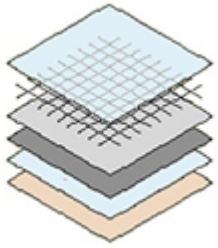
Technical Data Sheet – Monarflex® Reflex Super

(Rev. 2025)

Methane, Carbon Dioxide & Radon - High performance gas barrier



Top layer	LDPE with stabilizers, Sand
Coater Layer	LDPE with stabilizers
Aluminium	12 micron Aluminium layer
Coater Layer	LDPE with stabilizers
Reinforcement	PP, 8 x 8 leno grid
Bottom Side	LDPE with stabilizers, Black

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

Description:

Monarflex Reflex Super is manufactured from four layers of virgin low-density polyethylene (LDPE) with 8mm x 8mm split film polypropylene reinforcing grid in between to give high strength and tear resistance. The membrane also incorporates a 12 µm aluminium foil for extremely low permeability to gases. It also acts as a high performance DPM. The top surface is sand-coloured and ribbed, while the underside is black with a smooth finish.
One of the best known proprietary gas barriers membranes, Monarflex Reflex Super lead the market in the mid 1990's for quality specific membranes in this sector. It is a multi-foil membrane with a reinforcing scrim and aluminium layer. Reflex Super 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 Reflex Super is suitable for the following applications:

- Carbon dioxide, methane affected sites in accordance with BS8485:2015+A1:2019 & NHBC
- 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 /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.

CE **Moisture Barrier Type A – EN 13967**

Technical Data:

Technical data	Unit	Value	Tolerance	Test method
Length	m	25	+1% -0%	EN 1848-2
Width	m	2	+1% -0,5%	EN 1848-2
Thickness	mm	0,4	-0 / + 5%	EN 1849-2
Weight	g/m^2	370	-0 / + 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: > 500 CD: > 450		EN 12311-1
Elongation	%	MD: > 15 CD: > 11		EN 12311-1
Radon transmittance	10^{-9} m/s	< 3		SP internal test
Radon permeability	10^{-12} m^2/s	< 1		SP internal test
Methane gas transmission	$cm^3/(m^2.d.bar)^*$	≤ 0.12		ISO 15105-1
Nail tear resistance	N	MD: > 350 CD: > 350		EN12310-1
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	57		EN 12317-2
Joint strength welding	N/50mm	320		EN 12317-2
Water tightness to liquid water	kPa	Pass at 2 kPa		EN1928
Durability of water tightness against ageing	kPa	Pass at 2 kPa		EN 1296
Durability of water tightness against chemicals	kPa	Pass at 2 kPa	.	EN 1847

*a measurement in cm3/(m2.d.bar) is directly equivalent to one in ml/day/m2/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® Reflex Super is specified using the following:
Clause: J40/145
Product: Monarflex Reflex Super
Supplier: PAGeo Ltd, Darwin House, Corby Gate Business Park, Corby, NN17 5JG.

Roll Sizing & Weight:

2m x 25m (50m²)
18 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.