Engineered
Geomembrane
Solutions

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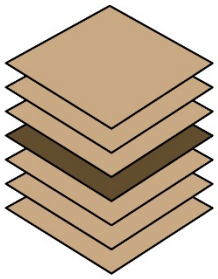
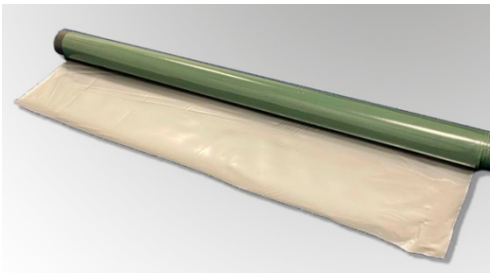
Technical Data Sheet – PAG HC 400

(Rev. Jan 2021)

Hydrocarbon, Methane, Carbon Dioxide and Radon – a high performance gas barrier, suitable for most applications.



3 layers of coextruded blown fPE film (top green, 2 x clear)
EVOH layer
3 layers of coextruded blown fPE film (bottom silver, 2 x clear)



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

Description:

PAG HC 400 is manufactured from six layers of virgin low-density polyethylene (LDPE) with a central layer of EVOH to give exceptional resistance to the passage of Organic Vapours. It also acts as a high performance DPM. The top and bottom surfaces are green and silver with a smooth finish.
Developed in the mid 2000's PAG HC 400 was the first multi-layer EVOH membrane using LDPE technology and has become one of the most popular materials for this application. PAG HC 400 is easily joined by all thermal welding machines.

Applications:

PAG HC 400 is suitable for the following applications:

- VOC contaminated sites
- Carbon dioxide and 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:

- ISO 15105-2 testing for resistance to petroleum and diesel vapours
- 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.

Moisture Barrier Type A – EN 13967

Technical Data:

TEST	UNIT	Tolerance	TEST METHOD
Thickness at 2kPa	mic	400 ± 5 %	
Mass per unit	g/m^2	376	EN 1849-2
Tensile Strength at break MD	N/mm	27 ± 5 %	EN ISO 527/1/3/5
Tensile Strength at break CMD	N/mm	27 ± 5 %	EN ISO 527/1/3/5
Elongation at beak MD	%	750 ± 5 %	EN ISO 527/1/3/5
Elongation at beak CMD	%	850 ± 5 %	EN ISO 527/1/3/5
Tear resistance MD	N	40 ± 5 %	EN ISO 34-1
Tear resistance CMD	N	40 ± 5 %	EN ISO 34-1
Puncture resistance	N	140 ± 5 %	ASTM D4833
O_2 Permeability	ml/m^2 x day at 1 bar	5 ± 10 %	ASTM D 1434
Methane Permeation	$cm^3(STP)m^2day^1atm^{1*}$	< 12	ISO 15105-1
Fuel Vapour transmission Rate			
Unleaded Petrol	$/mol/(m^2.s.Pa)$	3.45 x10E-13 avg	EN ISO 15105-2
Diesel	$/mol/(m^2.s.Pa)$	3.45 x10E-13 avg	EN ISO 15105-2
Roll Width	m	2	
Roll Length	m	25	

*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:

PAG HC400 is specified using the following:
Clause: J40/145
Product: PAG HC 400
Supplier: PAGeoTechnical Ltd, Darwin House, Corby Gate Business Park, Corby, NN17 5JG.

Roll Sizing & Weight:

2m x 25m (50m²)
20 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.

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