



POWERBASE[®] VOC

EFFECTIVE PROTECTION AGAINST HYDROCARBONS AND VOCs

protecting what matters

TECHNICAL DATA SHEET

Revision 6.3



Description

POWERBASE VOC is a geosynthetic barrier membrane for effective protection against heavy metals, hydrocarbons and volatile organic compounds (VOCs).

Application

Covered installations with low level of mechanical constraints, with no risk of puncture or abrasion.

Contaminated land, environmental protection, water resources & groundwater protection, secondary containment; tunnels & underground structures, liquid waste disposal sites, transfer stations; solid waste storage or disposal sites.

Installation

POWERBASE VOC membranes are joined by conventional thermal (hot air/wedge) welding equipment to provide overlapped seams for optimum barrier integrity.

Alternatively, the membranes can be overlapped and joined using POWERBOND sealing and jointing self-adhesive tapes.

Design Guidance and References:

- BS 8485: Code of practice for remediation from ground gas in affected developments
- BRE BR 414: Protective measures for housing on gas-contaminated land
- EN 13967: Flexible sheets for waterproofing.

Hydrocarbon & VOC permeation calculations

For soil analyses detailing hydrocarbon concentration levels, we can provide permeation calculations to assist with risk assessments and mitigation reports.

Please contact us for further details

Major Projects



Industrial



Housing



Railways



Commercial



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	Test	Test Method	POWERBASE VOC	Unit
Mechanical	Colour		Blue Green	
	Thickness	EN 1849-2	450	micron
	Unit Weight	EN 1849-2	427	gsm
	Tensile strength MD XD	EN 12311-1	435 430	N/50mm
	Elongation MD XD	EN 12311-1	724 717	%
	Nail tear MD XD	EN 12310-1	310 350	Newtons
	Impact resistance	EN 12691-B	2300	mm
	Dart drop	ASTM D1709	>1200	G
	Static load resistance	EN 12730	20	kg
	Temperature		-30 to +70	°C
Compliance	BS 8485	Compliant		
	NHBC Protection Measures	Green, Amber 1, Amber 2, Red		
Hydraulic	Water tightness	EN 1928	60	kPa
	Durability against Ageing	EN 1296	60	kPa
	Durability against Chemicals	EN 1847	60	kPa
	Water Vapour transmission	DIN 53122	0.2	ml.m ⁻² d ⁻¹
Permeability Ground Gases	CO ₂	ISO 15105-1	3.01	ml.m ⁻² d ⁻¹
	Methane	ISO 15105-1	0.14	ml.m ⁻² d ⁻¹
	Radon Diffusion Coef. (D)	ISO/TS 11665-13	<4.0 x 10 ⁻¹⁴	m ² .s ⁻¹
	Radon Resistance (R _{Rn})	(K124/02/95)	>51,919	Ms/m
Permeability Hydrocarbons & VOCs	Benzene	ISO 15105-2	<0.0001	ml.m ⁻² d ⁻¹
	Ethyl Benzene	ISO 15105-2	<0.0001	ml.m ⁻² d ⁻¹
	Toluene	ISO 15105-2	0.60	ml.m ⁻² d ⁻¹
	Xylene	ISO 15105-2	<0.0001	ml.m ⁻² d ⁻¹
Supply	Roll Size		3.0 x 25	m
	Roll Weight		32	kg

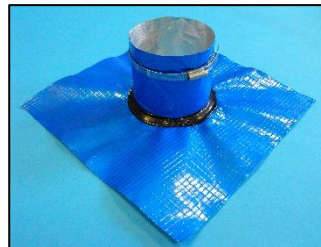
Other System Elements



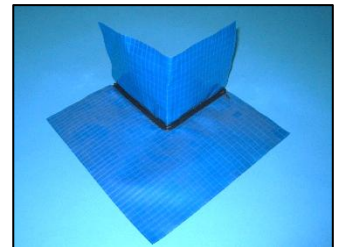
POWERBOND jointing tapes



POWERBOND sealing tapes



POWERBASE Top Hats



POWERBASE Corners

Test Results are obtained under laboratory conditions on new material and not under actual usage conditions. Test results only relate to the sample tested. Tolerances +/- 20%. No warranties or assurances of reliability, suitability or fitness for a particular purpose of specimens or data are offered. Assessment of suitability of such material and data for intended use is the sole responsibility of the customer.

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