

Seamless Membrane

Fully Bonded

25+ Year Life

Cold Applied

Permanent Water Contact

PRODUCT SPECIFICATION

Wall Protection

Liquid-Applied Polyurethane Waterproof Membrane — Walls, Ducts & Below-Ground



Key Features

- **Seamless & Fully Bonded**
 Continuous, joint-free membrane totally adhered to the substrate — no laps or seams to fail
- **Highly Flexible**
 Accommodates post-installation settlement and shrinkage with up to 421% elongation
- **Below-Ground Sealing**
 Applied below finished floor level after excavation to resist hydrostatic uplift into the building
- **Bonds to Any Surface**
 Adheres to concrete, brickwork and masonry — 2.0 MPa pull-off adhesion to concrete
- **Rapid Curing**
 Instant-set, cold-applied liquid coating — rain resistant within one hour of application
- **Permanent Water Contact**
 Guarantees total water-tightness under continuous immersion and prolonged flood events
- **Ties Into Flood Defences**
 Neatly integrates with fabricated MME barriers for a fully comprehensive flood solution
- **Maintenance Free**
 25+ year life expectancy with no maintenance required once installed

SYSTEM

 Polyurethane
 Membrane

ADHESION

 2.0 MPa
 to Concrete

ELONGATION

 421%
 Maximum

COVERAGE

 1.5–2 kg/m²
 Two Coats

LIFE

 25+ Years
 Maintenance-Free

FIRE

 B-roof (t1)
 Ext. Exposure

MM Engineering

Unit 4B Sirius Drive, Baglan Energy Park, Port Talbot SA12 7BR

Technical Specification

MM Engineering's Wall Protection system is a cold-applied, liquid polyurethane waterproofing membrane specified and installed by MME as part of a comprehensive flood-risk alleviation strategy. Walls are sealed below finished floor level to prevent flood water tracking through cracks in the structure or saturating through porous masonry under hydrostatic pressure.

ITEM	SPECIFICATION
System	Cold-applied, liquid polyurethane waterproofing membrane
Chemical Base	Solvent-borne single-component aromatic polyurethane
Cured Membrane	Continuous seamless elastomeric film, fully bonded to substrate
Substrates	Concrete, brickwork and masonry structures
Non-Volatile Content	81% · Density 1.3 g/cm ³ (20°C)
Hardness	Shore A 65–70 (ISO 868)
Maximum Elongation	421% · Tensile strength 3.4 MPa (EN-ISO 527-3)
Tear Strength	7.1 N/mm
Adhesion	2.0 MPa to concrete · 2.6 MPa to ceramics
Water Vapour Permeability	$\mu > 1000$ (EN 1931)
Thermal Resistance	Stable up to 80°C
Fire Resistance	B-roof – t1 (external fire exposure test)
Coverage	1.5–2 kg/m ² , applied in two coats
Substrate Preparation	Clean, dry and sound — pull-off resistance ≥ 1.5 N/mm ²
Curing	Rain resistant after 1 h; ~90% of properties in 3–4 days
Colours	Grey RAL 7001 / 7011, Black — other colours on request
Service Life	25+ years, maintenance-free

Installation & Quality

To flood-proof exterior walls, MME normally excavate around the building to its foundation. This allows the membrane to be applied below finished floor level, preventing water being pushed up into the building through hydrostatic pressure.

The coating is applied by brush, roller, spreader or airless spray in two coats, with localised reinforcement at critical joints and any identified cracks. The system ties neatly into fabricated MME flood defences to deliver a single-source, fully comprehensive flood-protection solution.

Engineered for Prolonged Flood Events

Walls are a critical line of defence. At the base of a 1m-high wall, flood water exerts around one tonne of pressure — structural integrity is reviewed for every project to the specified design flood level.

[Contact us for a same-day quote](#)