Formaliner Membrane
F3000 Data Sheet

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Introduction

Formaliner impermeable geomembranes are heavy-duty linear low-density polyethylene weldable impermeable geomembranes, for Formavoid stormwater attenuation and containment applications. Specifically selected for flexibility, tensile strength, puncture resistance and chemical stability.

It is advised that joints hot air welded with a twin wedge welder and tested with an air lance. For attenuation applications, membrane panels may be sealed with double sided Formaliner jointing tape subject to design specification.

For use in accordance with harmonised standards: BS EN 13361/13362/13492.

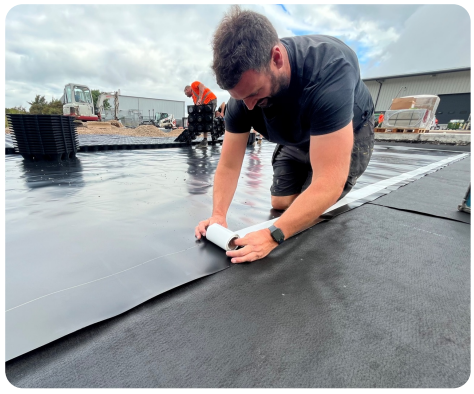
Formaliner	Attenuation	Containment
Product Code	F3001	F3010
Thickness	0.71mm (ASTM D5199)	0.95mm (ASTM D5199)
Material	Linear Low-Density Polyethylene	Linear Low-Density Polyethylene
Density	≤0.939g/cm³ (ASTM D792)	≤0.939g/cm³ (ASTM D792)
Tensile Strength	22kN/m (ASTM D6693)	29kN/m (ASTM D6693)
Break Elongation	650% (ASTM D6693)	650% (ASTM D6693)
Tear Resistance	70N (ASTM D1004)	100N (ASTM D1004)
Puncture Resistance	210N (ASTM D4833)	275N (ASTM D4833)
Low Temperature Brittleness	-77°C (ASTM D746)	-77°C (ASTM D746)
Dimensional Stability	±2% (ASTM D1204)	±2% (ASTM D1204)
OIT - Standard	100min (ASTM D3895)	100min (ASTM D3895)
Oven Aging - % retained after 90 Days STD OIT	-	35% (ASTM D3895)
Oven Aging - % retained after 90 Days HP OIT	-	60% (ASTM D5885)
UV Res. - % retained after 1600 hr HP - OIT	-	35% (ASTM D5885)

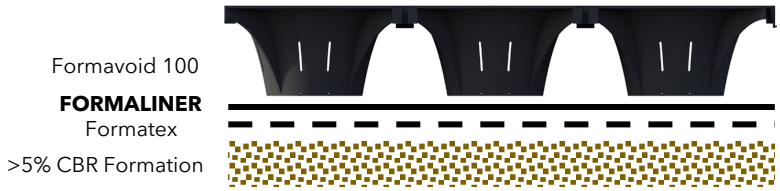
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- Compatible with membrane sealed components.
- Formaliner geomembranes to be placed on a Formatex *(F2001)* protection geotextile.
- Overlaps of minimum 150mm are required.

Compatible Products

Code	Name	Description
F3023	Formaliner Formation Inlet/Outlet	Membrane sealed formation inlet/outlet to suit 160mm fittings.
F3021	Formaliner 160mm Invert Tank Adaptor	Rigid pipe spigot to suit 160mm pipe with membrane skirt for sealing at the invert of a system.
F3022	Formaliner 160mm Flat Tank Adaptor	Rigid pipe spigot to suit 160mm pipe with membrane skirt for sealing to the side, base or top.
F5000	Formaflo Chambers	All Formaflo chambers have a membrane sealing strip.

Packaging	Attenuation	Containment
Type	Roll	Roll
Width	5.8m / 7m	5.8m / 7m
Length	105m / 275m	105m / 275m
Weight	600kg / 1,900kg	600kg / 1,900kg
Storage	Store in original packaging indoors where possible.	

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F3000 Material Safety

1. Identification of the substance & the company	
Chemical Name	Polyethylene
Manufacturer	Solmax Geosynthetics GmbH Normannenweg 28 20537 Hamburg Germany Tel +49 40 76742–0
2. Composition	
Composition	Polyethylene Carbon Black Antioxidants and stabilisers
3. Hazard identification	
Important hazards	None
4. First-aid measures	
Inhalation	No emergency medical treatment necessary
Skin contact	Any molten material on the skin/burns should be cooled as quickly as possible by means of cold water. Cover the wound with sterile doth and move person to first aid station or hospital for medical treatment
Eye contact	Any material entering the eye should be flushed out with copious volumes of water. Irritation takes place due to mechanical effect
Ingestion	No danger of toxicity, this material is biologically inactive
5. Fire-fighting measures	
Extinguishing media	Water, carbon dioxide, dry chemical fire extinguishers, synthetic foams, sand
Combustion products	No harmful additives are present with respect to the material. Normal combustion forms carbon dioxide, water vapour and may produce carbon monoxide, original monomer, other hydrocarbons and hydrocarbon oxidation products, depending on temperature and air availability.
Protection for fire-fighters	Wear self-contained breathing apparatus
6. Accidental release measures	
Personal protection	See section 8
Environmental protection	No special requirements

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F3000 Material Safety

7. Handling and storage	
Information for safe handling	No special measures required
Information for safe storage	Maximum 5 rolls on top of each other, use scantlings against sliding, store away from flames
8. Exposure controls/personal protection	
Control parameters	TLV for respirable dust: 10 mg/m³
Respiratory protection	Use dust mask at extensive grinding
Hand protection	Use heat resistant gloves when handling hot material
Skin protection	Protect skin against molten material
Eye protection	Use safety glasses (when grinding)
Additional information	Use safety shoes with steel toe cap
9. Physical and chemical properties	
Physical state	Solid
Form	Sheet
Colour	Black
Odour	Odourless
pH Value	N/A
Relative density	0.94 - 0.96g/cm³
Melting point range	110 - 140°C
Pyrolysis temperature	>300°C
Boiling point	N/A
Flash point	>340°C
Flammability point	>350°C
Solubility in water	Insoluble
Vapour pressure	N/A
10. Stability and reactivity	
Thermal decomposition / conditions to be avoided	No decomposition if used to specifications
Dangerous reactions	No dangerous reactions known
Hazardous decomposition products	Carbon dioxide, carbon monoxide, other hydrocarbons and hydrocarbon oxidation products, aldehyds
Long term exposure	Do not expose for long periods to temperatures above 60 °C
Materials to avoid	Strong oxidizing agents
Stabilization	The material is stabilized with antioxidants

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11. Toxicology information	
Acute toxicity	None
Local effects	None
Chronic toxicity	None
Sensitization	None
Specific effects	None
12. Ecological information	
Mobility	Solid
Degradability	Sheet
Bioaccumulation	Black
Ecotoxicity	There is no indication that this material is a risk for the environment
Aquatic toxicity	Insoluble non toxic solid material (no water hazard)
13. Disposal considerations	
This material presents no danger regarding toxicological and/or ecological considerations. Material can be recycled, disposal must be made according to official regulations	
14. Transportation information	
Special precautions	This material is not classified as dangerous good.
15. Regulatory information	
Labelling according to EC guidelines	The product is not subject to identification regulations under EU Directives and the Ordinance on Hazardous Materials.
16. Other information	
This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship. This data is offered for your consideration, investigation and verification.	

Document Ref	Revision	Revision Date
F3001-DS	01	30.01.2026

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