



a.b.e.[®] Construction Chemicals **ecofelt**

SATURATION MEMBRANE

DESCRIPTION

ecofelt is a 100% polypropylene continuous filament saturation membrane. It has a highly porous three-dimensional fibre structure, manufactured by needle-punching the fibres to form an homogeneous sheet. It has been proven internationally to be one of the best saturation membranes for improved waterproofing performance. **ecofelt** is compatible with cementitious composites due to its excellent alkali resistance.

USES

Tunnel waterproofing

Waterproofing of buildings/structures

- Flat roof waterproofing
- Basement waterproofing
- Tanks
- Flashings
- Ubutments

Containment systems

- Potable water reservoirs
- Hydroelectric storage reservoirs

Hydraulic structures

- Dam walls
- Canals
- Emergency spillways

ADVANTAGES

Improved puncture resistance

The three-dimensional fibre structure and high elongation characteristics under load ensure absorption of impact stress and improved puncture resistance. Use of lighter gauge membranes is therefore possible with **ecofelt**.

Provides good saturation properties

The three-dimensional fibre structure and high percentage of air voids (approx. 90% in uncompressed state) allows rapid radial free flow of liquids in the plane of the fabric, thereby ensuring good saturation.

Improved installation surface

ecofelt provides a clean dust-free surface that is smooth and continuous and facilitates improved panel positioning and overlaps.

Chemically and biologically inert (pH range 2-13)

Does not deteriorate in soils due to microbial attack. Resistant to the effects of long-term exposure to acid and alkali solutions in the pH range 2-13. Does not hydrolyze when placed in contact with damp cementitious surfaces. **ecofelt** is certified resistant to municipal and industrial waste seepage.

Resistant to effects of heat and humidity

ecofelt does not hydrolyze when installed in tropical climatic conditions.

High UV-Resistance

The polypropylene polymer used in **ecofelt** is highly UV-stabilized to ensure no strength loss occurs when exposed to sunlight during installation.

ecofelt has been field and laboratory tested in extreme UV-environments worldwide and proven to have one of the best levels of resistance of all saturation membranes tested.

On-Site thermal fabrication capability

The type, size and structure of fibres utilized in the manufacture facilitate bonding of overlaps with simple equipment. This allows the saturation membrane to be quickly anchored especially in windy conditions while providing cost savings in overlaps and continuity between panels.

Clearly marked for on-site quality assurance

Each full roll of **ecofelt** (1 m wide) is continuously marked along the edge with the product grade and a quality control batch number for ease of on-site inspection and quality assurance.

Clearly defined product properties

Careful determination of all mechanical, hydraulic and chemical properties allows precise design and performance assessment.

Compatible for use with all geomembrane types

ecofelt saturation membrane is compatible for use with all types of geomembrane materials.

Proven international performance **ecofelt** saturation membranes have been proven in all types of prestige installations worldwide.

SURFACE PREPARATION

Surfaces must be sound and free of contaminants.

TEMPERATURE AND RELATIVE HUMIDITY

Not affected.

MODEL SPECIFICATION

Polypropylene reinforcing membrane for a.b.e.® waterproofing systems. The only product to be used with cement-based waterproofing products such as dura.®flex.

The reinforcing membrane will be **ecofelt**, a non-woven, needle-punched polypropylene membrane applied in accordance with the recommendations of **a.b.e.® Construction Chemicals**. The membrane will weigh 90 g/m² and have an elongation at break of 40-70%.

PACKAGING

Width: 1 m wide and 2 m wide rolls

Length: 250 mm

Cut rolls:

1 m x 1 m

20 m x 100 mm

20 m x 200 mm

20 m x 250 mm

20 m x 300 mm

10 m x 200 mm

2,5 m x 200 mm

HANDLING & STORAGE

This product has a shelf life of 24 months if kept in a dry cool place in the original packaging. In more extreme conditions this period might be shortened.

HEALTH & SAFETY

ecofelt is inert and harmless.

IMPORTANT NOTE

This data sheet is issued as a guide to use of the product(s) concerned. Whilst **a.b.e.® Construction Chemicals** endeavours to ensure that any advice, recommendation, specification or information is accurate and correct, the company cannot - because **a.b.e.®** has no direct or continuous control over where and how **a.b.e.®** products are applied - accept any liability either directly or indirectly arising from the use of **a.b.e.®** products, whether or not in accordance with any advice, specification, recommendation, or information given by the company.

FURTHER INFORMATION

Where other products are to be used in conjunction with this material, the relevant technical data sheets should be consulted to determine total requirements. **a.b.e.® Construction Chemicals** has a wealth of technical and practical experience built up over years in the company's pursuit of excellence in flooring and concrete technology.

PROPERTIES		UNITS	ecofelt	TEST METHOD
Material	100% polypropylene, continuous filament, needle-punched			
Mass		g/m ²	95	ISO 9864
Thickness	Under Pressure 2kPa	mm	1	ISO 9863 ASTM D5199
Tensile Strength		kN/m	6.5	
Tensile elongation	MD	%	70	ISO 10319
	CD		40	
CBR Puncture		kN	1.02	ISO 12236
Drop Cone	Diameter of hole	mm	40	ISO 13433 EN 918
Opening Size	0 ₉₀	mm	0.13	ISO 12956
Vertical Permeability	1 x 10 ⁻³	m/s	4.0	ISO 11058
Vertical Water Flow	100 mm head	L/m ² /s	400	
Grab Tensile Strength		N	380	ASTM D4632
Standard Roll Size	Width	m	1	
	Length	m	250	
			25	



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