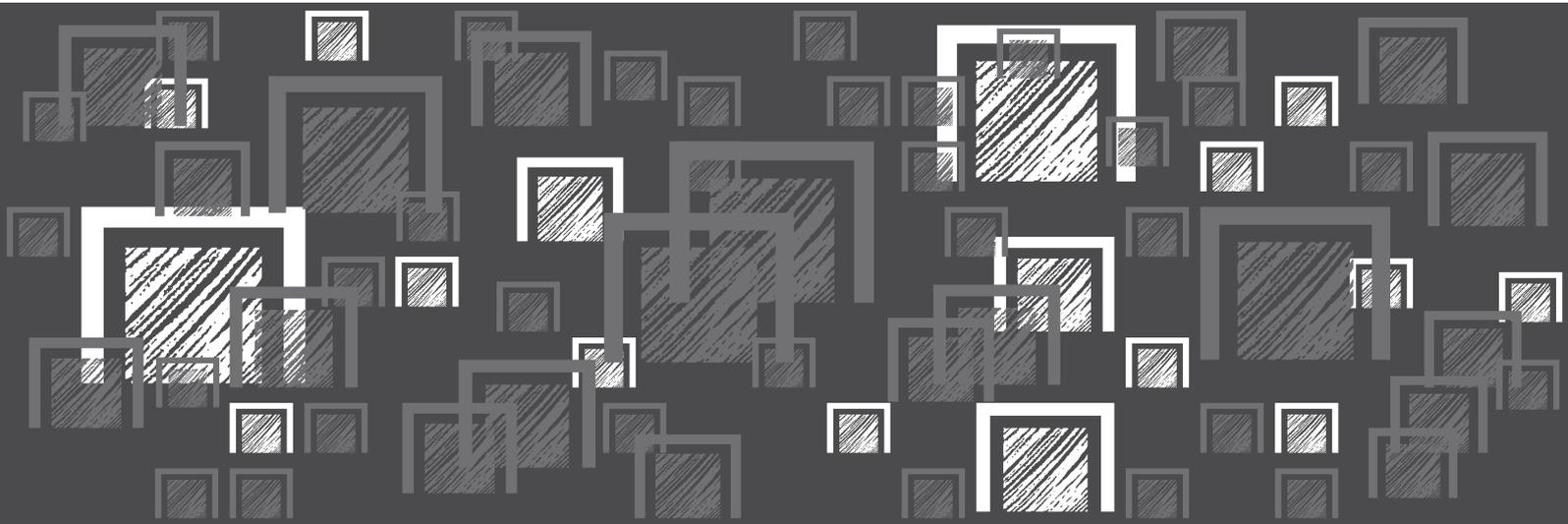


 **ECOLINE**
SINGLE-PLY ROOFING





AXTER

Axter is part of the Bouygues Group of Companies and is one of the world's leading designers and manufacturers of roofing and waterproofing membranes. With over 100 years of experience, Axter specialises in the production of high quality, robust, fully integrated membranes for extensive use in both new build and renovation projects.

Axter's comprehensive product portfolio includes over 700 different systems which have been engineered to provide unparalleled performance and design flexibility. Through our global network of dedicated representatives and our relentless commitment to research and development, Axter ensures its systems are successfully supplied and installed in more than 60 countries worldwide.

It is Axter's proud tradition in the design and manufacture of high performance waterproofing systems that has facilitated the development of the ECOLINE PVC-p (polyvinyl chloride) next generation synthetic membrane system range.

ECOLINE

Engineered to provide unrivalled environmental performance, ECOLINE is a lightweight, flexible PVC-p single-ply synthetic membrane that has been specifically designed for widespread use on all roofing projects including domestic, commercial and industrial structures. ECOLINE systems provide excellent performance characteristics such as strength and flexibility and are fully reinforced and available with or without a fleece back (ADH material); this determines the product application. The ECOLINE system is complemented with a full range of vapour control layers and accessories that ensure a total design and installed solution is achieved.

ECOLINE systems deliver specifier and installer confidence in both performance and design freedom. The waterproofing membranes can be installed either mechanically fixed (FM) or adhered (ADH) as part of a warm roof installation. ECOLINE single-ply systems provide unquestionable quality and long term value for money and are the system of choice for specifiers worldwide.



Environmental Responsibilities

Axter takes its environmental responsibilities extremely seriously and is committed to the reduction of its carbon footprint, energy consumption and waste throughout all its operational procedures. As part of the Bouygues Group of Companies, Axter has adopted the United Nations Global Compact including a formal pledge to uphold environmental protection. Bouygues and its subsidiaries take a proactive sustainable development approach across all areas of activity and are focused upon targeted advancement in:

- Waste recycling
- Life cycle performance
- Hazardous material use
- Reduced energy consumption
- Minimum packaging
- Reduced raw material consumption

ECOLINE and the Environment

PVC-p single-ply synthetic membrane waterproofing systems protect the building from

the severe effects of exposure to the elements, conserving the economic value of the property and increasing its serviceable life. One of the principal environmental benefits associated with PVC is its versatility and its ability to re-use waste material generated during the manufacturing process. This reduces Axter's consumption of raw materials and our dependence on landfill.

Contrary to most plastics PVC is not 100% produced from fossil fuels as its constituent parts are chlorine, carbon and hydrogen in variable concentration. The principal constituent, chlorine, accounts for approximately 60% of the material and is derived from common salt that is a sustainable raw material with unlimited world supply. Approximately 40% of the raw material is derived from other resources and advanced manufacturing techniques have ensured that ECOLINE membranes have a proportion of recycled content.

BRE Green Guide to Specification

The BRE Green Guide to Specification is part of BREEAM (BRE Environmental Assessment

Method), an accredited environmental rating scheme for buildings and their elemental construction.

The ratings are based on Life Cycle assessments using BRE's Environmental Profiles Methodology 2008 and enable designers to compare and select appropriate materials as they compile their specifications. Under this assessment method the complete specification (supporting structure, thermal insulation and waterproofing elements) is evaluated under environmental criteria such as impact of manufacture, recycling potential, implementation within the building, maintenance and end of life disposal.

A typical ECOLINE synthetic membrane roofing system will achieve a BRE Green Guide rating of A+ (BRE Green Guide to Specification 2008). Green Guide ratings will vary according to individual specification and although Axter can give advice on the elemental value of a construction, a BRE assessor should be employed to ascertain project specific BRE Green Guide ratings.

ECOLINE Product Range – Membranes

ECOLINE FM – Polyester reinforced PVC-p membrane

Thickness	1.2 mm	1.5mm
Roll size	1.05m x 25m and 2.10m x 25m	1.05m x 20m and 2.10m x 20m
Installation method	Mechanically fixed or fully bonded with Axter FM/D contact adhesive	

ECOLINE ADH – Polyester reinforced (fleece backed) PVC-p membrane

Thickness	1.2 mm	1.5mm
Roll size	1.6m x 20m	1.6m x 20m
Installation method	Fully bonded with Axter ADH solvent free membrane adhesive	

ECO/R – Polyester reinforced PVC cover strip

Thickness	1.5mm
Roll size	0.2 x 20m
Installation method	Fully bonded using standard welding techniques

ECO/D – Non-reinforced PVC-p membrane used to form on site details

Thickness	1.5mm
Roll size	0.32m x 20m
Installation method	Fully bonded using standard welding techniques

E/STEP – Non-slip walkway membrane for designated access routes

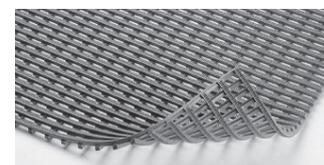
Thickness	14mm
Roll size	10m x 0.6m
Colour	Grey
Installation method	Loose laid spot welding may be required in exposed high wind locations

VAPOUR CONTROL LAYERS – Self-adhesive / heat bonded to suit substrate deck

VAP-IND polymeric foil self adhesive membrane for use on plywood and metal decks	
Roll size	1.08m x 50m
VAP-AL / VAP-AL SK aluminium cored bituminous membrane for use on primed concrete decks (SK self adhesive for use on plywood and metal decks)	
Roll size	8m x 1m

SEPARATION MEMBRANES – Polyester separation membrane

Eco/125*	2.2m x 75m roll
Eco/200	2m x 100m roll
Eco/300*	2.2m x 75m roll
Installation method	Loose laid



* = not stocked item

ECOLINE Product Range – Accessories

E/CORNERS – Pre-fabricated internal and external corners

Thickness	1.5mm
Packaging	20 units/box
Attachment method	Fully bonded using standard welding techniques

E/METAL – Pre-fabricated PVC coated metal

Sheet size	1m x 2m
Attachment method	Mechanically fixed with Ecoline fixings

RESTRAINT BAR & PVC CORD – Galvanised pre-drilled restraint bar & PVC cord for securing membranes

Bar Length	20mm x 1.95m
Attachment method	Mechanically fixed with Ecoline fixings
Cord packaging	4mm cord, 200lm/roll
Attachment method	Fully bonded using standard welding techniques with cord nozzle

E/PROFILE – Moulded PVC standing seam profile

Length	4m
Attachment method	Fully bonded using standard welding techniques

MTP/C FIXINGS – High performance membrane fixings for all substrate decks

5.8mm diameter for metal timber, plywood and OSB decks	
Length	300mm maximum
6.1mm diameter for concrete decks	
Length	300mm maximum
Ecoline Tubular washers to suit system depth and fixing type	

FM/D CONTACT ADHESIVE – For bonding FM and ECO/D membranes

Packaging	5litre and 20litre drum
Coverage	10m ² /litre

ADH ADHESIVE – For bonding ADH (Fleece backed) membranes

Packaging	22kg drum
Coverage	5m ² /kg

RAINWATER OUTLET – Ecoline compatible outlet range

Available outlet diameter	40mm - 160mm
Attachment	Mechanically fixed and fully bonded using standard welding techniques
Outlet compatible leaf guards with adjustable clamp to suit pipe diameter	

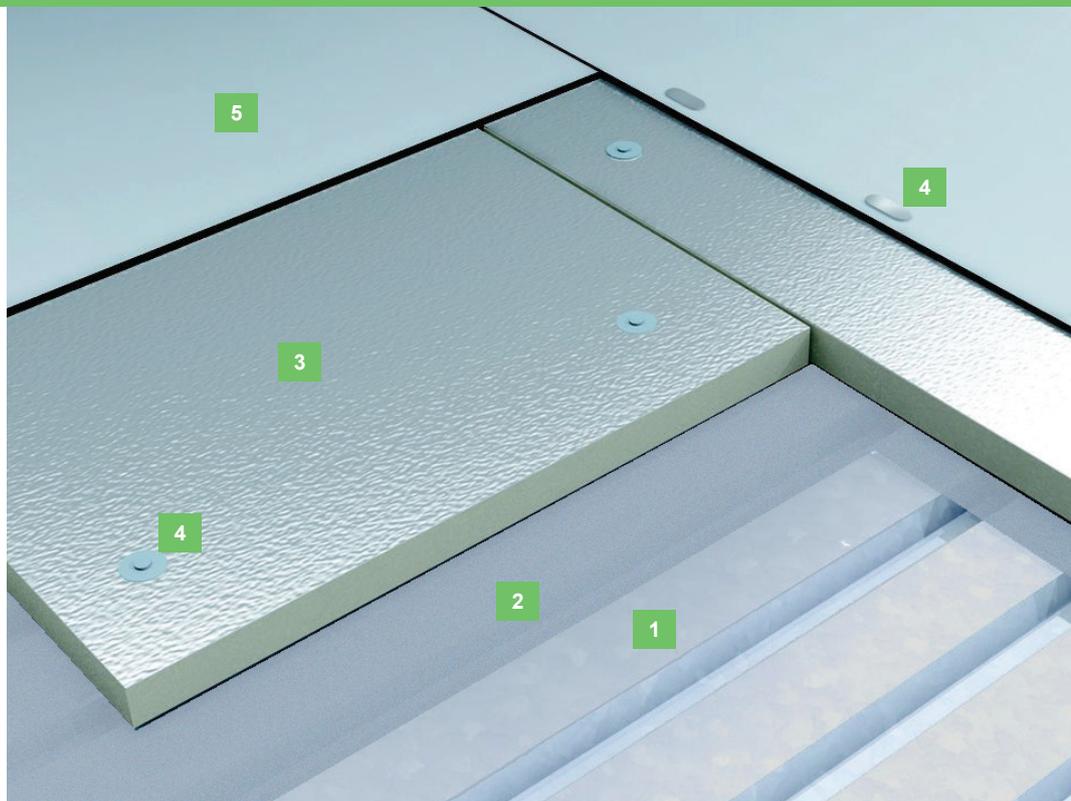
PARAPET OUTLET – Ecoline compatible parapet outlet range

Available outlet diameter	50mm, 75mm & 110mm
Attachment	Mechanically fixed and fully bonded using standard welding techniques
Outlet compatible leaf guards with adjustable clamp to suit pipe diameter	



ECOLINE FM (Polyester reinforced) mechanically fixed warm roof system

1	Metal deck (primed)
2	VAP IND vapour control layer
3	HYTHERM FM Insulation
4	MTP & I Fixings and washers
5	ECOLINE FM membrane



Quality

Axter has been manufacturing high quality waterproofing membranes for over 30 years and specialises in protecting buildings and the environment from the severe effects of the weather. Axter's manufacturing sites are amongst the most technologically advanced in Europe and are independently assessed by AFAQ and quality assured to ISO 9001: 2008 and ISO 14001: 2004. All Axter ECOLINE membranes are CE marked and carry BBA certification: Agrément Certificate No. 12/4947.

Benefits

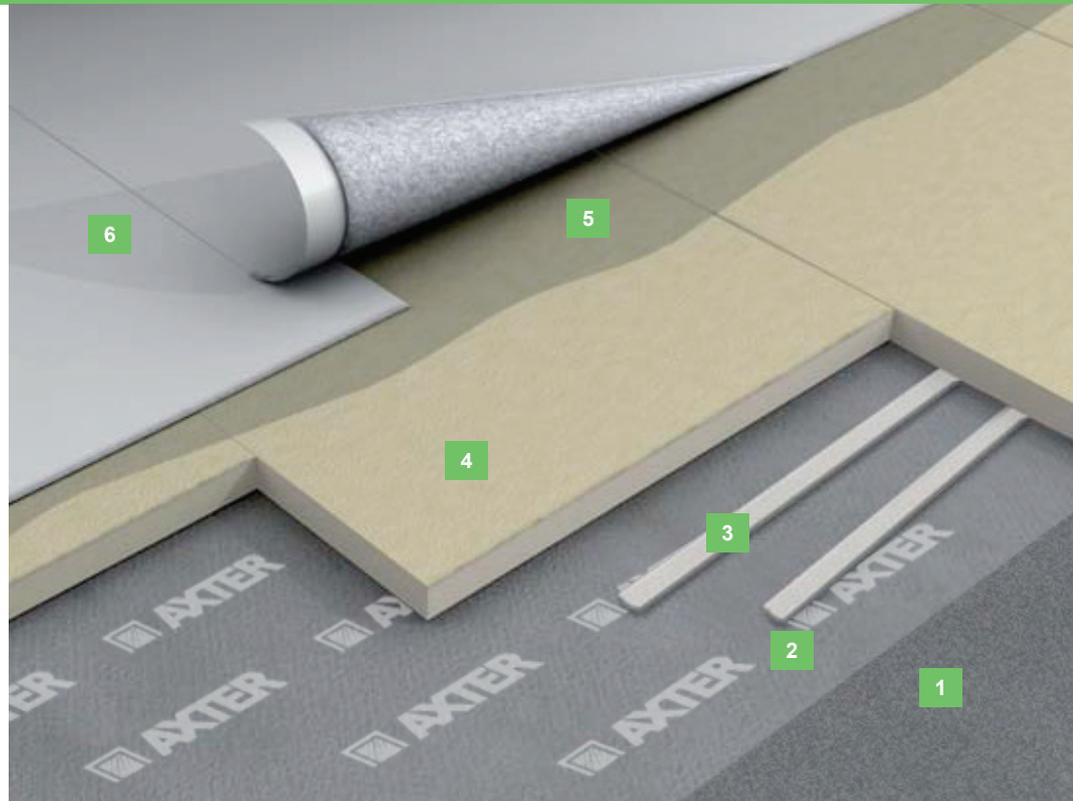
PVC waterproofing membranes have been in use for more than three decades and are a proven, reliable solution for the majority of flat and low slope roofs. ECOLINE PVC-p membranes combine a select mix of polymer

compounds that encapsulate a polyester or glass mesh reinforcement in two layers resulting in the following benefits:

- Recycled polymers
- Weathering and UV resistance
- Design flexibility
- High strength and mechanical resistance
- Low temperature flexibility
- Cost-effective solutions
- Vapour permeability
- Superior weld characteristics
- Quick installation and detailing
- Zero flame – hot air welded installation
- Wide range of aesthetic choices
- CE marked
- British Standard (BS EN 13956:2012) compliant

ECOLINE ADH (Fleece backed membrane) fully bonded warm roof system

1	Concrete deck (primed)
2	VAP AL vapour control layer
3	HYRA-STIK PU adhesive
4	HYTHERM ADH Insulation
5	ADH adhesive (solvent free)
6	ECOLINE ADH membrane



ECOLINE Installation

ECOLINE single-ply synthetic membrane systems must be installed by competent roofing contractors that have successfully completed the ECOLINE system training syllabus. All ECOLINE trained operatives will be issued with photographic identification that must be carried at all times as proof of competence and failure to do so will result in permit to work refusal. ECOLINE trained operatives must complete training refresher courses every three years or upon instruction by Axter to maintain their competency in the system.

In addition to manufacturer training, ECOLINE systems should be installed by accredited roofing professionals trained to at least NVQ (England, Wales & Northern Ireland) SVQ (Scotland) Level 2 (Applied Waterproof Membranes – Single-Ply

Roofing) and all supervisors having achieved Level 3.

Axter recommends that all ECOLINE operatives are Construction Skills Certification Scheme (CSCS) registered and should carry a valid registration card.

ECOLINE System Warranty

Developed with worldwide sales in mind, ECOLINE has been engineered to provide building owners with versatile, cost effective roofing solutions that meet the exacting demands of all climatic conditions. To give further reassurance to our clients, where products are purchased through one of our partners, and installed by an ECOLINE installer Axter will provide a 15 or 20 year material and labour warranty without hesitation.

ECOLINE 1.2mm	15 year Warranty
ECOLINE 1.5mm	20 year Warranty

Service

Axter has built its reputation on providing quality solutions for all roofing and waterproofing applications. To assist clients, Axter's commercial team provides full technical support including a bespoke specification service, project specific detail drawings with full design liability, U-value and condensation risk analysis and in-house cut-to-falls insulation design, all to ensure our systems comply with the latest building regulations and codes of practice.

Site Inspection

Axter's Quality Management team will inspect, survey and monitor all projects throughout the installation process to ensure that customer expectations and Axter stringent guarantee requirements are achieved.

Axter Partners

Axter supports and works in partnership with a UK wide network of independent roofing merchants who supply the ECOLINE range of products and uphold the Axter philosophy of unrivalled service, knowledge and expertise. Please contact Axter for details of your nearest ECOLINE stockists.

Full system and stockist information is also available at www.axter.co.uk.



Axter Limited

West Road, Ransomes Europark, Ipswich, Suffolk, IP3 9SX

Tel: 01473 724056

Fax: 01473 723263

E-mail: info@axterltd.co.uk

Web: www.axter.co.uk



Technical information and specifications within this document are for guidance only and are subject to change without notice. Axter Ltd cannot be held responsible for errors or for information which may be construed as misleading. It is the specifier's responsibility to ensure that the materials are suitable for the requirements of the construction. All specifications should be checked with Axter Ltd prior to their use.