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## Exterior Walls

below and above ground



# OLDROYD

THE ULTIMATE WATERPROOF MEMBRANE SYSTEM



# The flexible, fast and cost-effective answer to moisture in exterior walls and basements...

The Oldroyd Xv membrane system has been designed to be simple to apply and highly effective. Oldroyd Xv provides an exceptionally fast and convenient way to ensure that moisture stays where you want it - on the other side of the wall!

When mortar and concrete set and harden cracks can form due to shrinkage. Even though these cracks are small, they allow water and dampness to penetrate a basement wall.

The effects of moisture penetrating the wall are two-fold. The visible ones are the appearance of salts on the inside wall and the peeling of paint and wallpaper. The less visible effects are the reduction of the wall's insulating properties, and that 'damp cellar smell'.

Surface treatment is therefore needed because even the best of renderings won't give long term protection. Any subsidence in the ground or movement due to frost damage can result in cracks appearing. Bitumen coatings are susceptible to attack from acids in the soil.

## The solution is Oldroyd Xv - the studded membrane with unique properties

- Provides a flexible barrier between the ground and exterior wall.
- Cost-effective, fast and safe installation.
- Made from polypropylene it is easy to work with, even at low temperatures.
- Its unique design makes it easy to apply around corners and over footings.
- Consistent material thickness of membrane and stud gives great strength.
- Fixings to fit the studs and a finishing profile provide secure and neat fastening.

## Exterior Walls



## Oldroyd Xv is a patented design, no other range of membranes can provide these advantages:

- The membrane with the unique X pattern. This makes Xv simple to work with, easy to cut, easy to fold, exceptionally straight with no 'Banana-ing' and no weakening of the membrane.
- The most commonly used system in Scandinavia and most European countries. Made from polypropylene. No other range of membrane combines polypropylene with an X pattern, so nothing else comes close to the consistency of quality of Oldroyd membranes.
- The X pattern is patented. Only Oldroyd products have this and no other membrane is as easy to work with - saving you time, stress and money!





Finishing profile

Product applications and technical information

## Oldroyd Xv

Oldroyd Systemer AS was the first manufacturer to use polypropylene in the production of studded membranes.

The patented X pattern design of the membrane and the use of polypropylene result in a product which is easy to install even in connection with complex constructional details saving you time and money. No other range of membranes has these features, so no other membrane can compare with the Oldroyd system for ease of use and quality.

The primary function of Oldroyd Xv is to protect the wall from the ingress of moisture.

Oldroyd Xv studded membrane allows constructional moisture in external walls to escape.

The main component of the Oldroyd system is a membrane with a thickness of 0.5mm and a characteristic pattern of studs and channels. It is 100% watertight and resistant to all chemicals normally found in the soil.

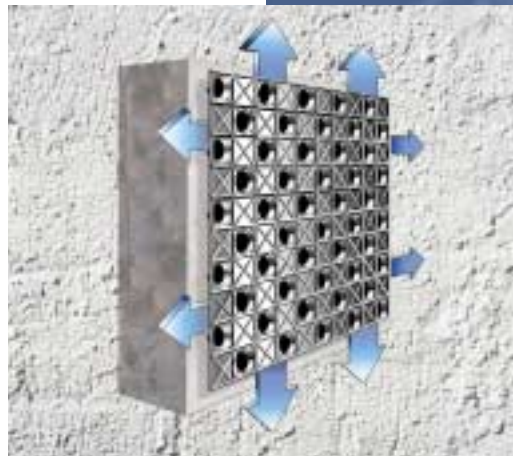
Together with fixings and accessories, Oldroyd Xv provides a complete system for combating the problem of moisture in exterior walls.



Folds easily - for speed in complex fit situations



Easy to cut



Air gap technology



The Oldroyd X pattern withstands stress and movement better than competing membranes.

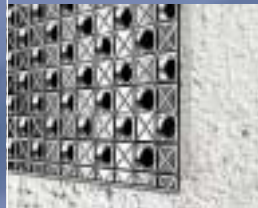
Xv

BELOW GROUND



# Easy to cut, bend and fold, the fast way to create dry exterior walls...

## Application guidelines



3. The edge of the membrane with studs will then be at the bottom.



4. Oldroyd Xv fastened to the wall at the top, should be rolled-out from left to right thus ensuring that the studs face inwards. If possible start at least 600mm from a corner.



5. Oldroyd Xv is rolled-out along the basement wall and should cover all surfaces below terrain level. The membrane should be fastened at the top with nails and plugs every 250mm.



8. Horizontal joints can be necessary when protecting high basement walls. These joints should overlap at least 150mm. Start with a run at the base and let the next run overlap the one below to avoid blocking the air gap when backfilling.



9. If the level of the surrounding terrain has not been finalised at the start, Oldroyd Xv should be fastened so that it can be trimmed at the top when the terrain level is finally decided. NB! The top should be cut 150mm under the finished terrain, remember the top finishing profile.



11. The drainage aggregate to be placed around the drain should be separated from the surrounding earth by a suitable filter (separation) cloth. This is to ensure that the drainage function of the aggregate is maintained.



12. Backfill against the membrane until the correct terrain level is reached.

Oldroyd Xv membrane is an effective insulator against undesirable moisture. The air gap created between it and the wall allows constructional moisture to escape and the membrane isolates the wall from water in the surrounding ground.

## Exterior Walls

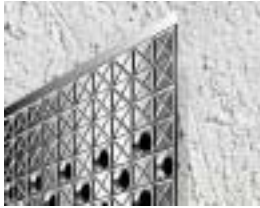




The terrain around the basement should have adequate falls to ensure that surface water runs away from the building.



1. It may be necessary to render the wall if it is of block construction.



2. Make sure that the edge of the membrane without studs is at the top and that the studs face inwards towards the wall.



6. Vertical joints should have an overlap of at least 200mm. A vertical joint should be at least 600mm from a corner and the distance between nails should be max. 200mm.



7. As an extra safeguard against the entry of earth or water into the air gap and for a neat finish, the Oldroyd edging profile is recommended.

## Gun plugs for rapid application



10. After Oldroyd Xv has been fastened in place the ground drain should be laid on a prepared bed of aggregate. The drain's highest point should be at least 200mm below the intended floor level.



13. The terrain above Oldroyd Xv can be finished as desired.



Oldroyd Xv can now be applied to concrete using the unique new Gun Plug, providing an accurate, safe and easy means of fixing.



# The proven system to drain & filter water away from back-filled walls providing the option to use insulation externally...

The Oldroyd G membrane system combats the problem of dampness in exterior walls and basements, providing an ultra low risk solution to the need to provide good drainage and air circulation. The geotextile prevents particles from obstructing or blocking the drainage cavity - allowing moisture to drain away.

Cracks in basement walls, efflorescence, discolouring and mold as well as flaking plaster and damage to paint and wallpaper can all take when damp is present. Cracks, often in conjunction with bad drainage, are the most usual reason for moisture penetration.

Cracks in basement walls can occur throughout the life of a building due to settlement or exceptional loading. Drainage of the surrounding ground can also deteriorate over time or fail completely due to poor planning or incorrect installation.

Rain, melting snow and ground water are the most usual sources of dampness.

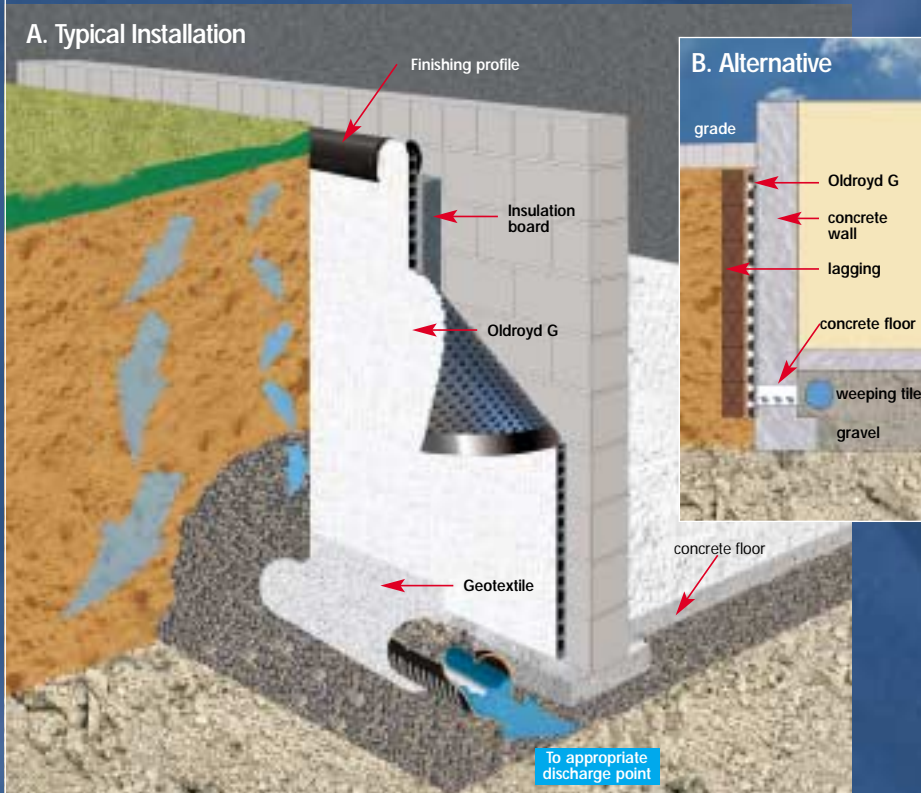
**The solution is Oldroyd G - the studded membrane with a welded geotextile - providing a 100% watertight barrier.**

**The bond achieved by welding the geotextile to the membrane is superior to that obtained by gluing.**

These properties make Oldroyd G the best choice

- Flexibility and strength. Each roll is small in diameter and low in weight, making it easy to transport and carry.
- Rapid and easy application.
- Produced from high quality polypropylene using patented technology ensuring a consistent thickness including the studs.

## Exterior Walls



**Oldroyd G features a welded polypropylene geotextile. No other range of membranes can provide these unique benefits:**

- The use of a welded geotextile provides permanent bonding, ensuring it will not easily separate and isn't subject to slipping over a period of time in use.
- Made from polypropylene with a polypropylene geotextile resulting in a consistent, high quality product.
- Oldroyd G is simple to work with, easy to cut, easy to fold, exceptionally straight with no 'Banana-ing' and no weakening of the membrane.





Withstands stress and movement.

## Oldroyd G

Oldroyd Systemer AS was the first manufacturer to use polypropylene in the production of studded membranes.

The combination of the stud and geotextile composition of the membrane and the use of polypropylene result in a membrane which is easy to install even in connection with complex constructional details. Fixing couldn't be easier, with a specially designed plug which fits most nailing guns providing excellent grip. This plug can also be used manually.

The primary function of Oldroyd G is to protect the wall from external moisture. Polypropylene's flexibility ensures a product well suited to dealing with complicated constructional details, this is of great importance in the protection of basement walls against moisture.

Oldroyd G ensures an effective drainage from the surrounding earth and eliminates pressure of water against the foundation wall.

Because it is based on polypropylene, Oldroyd G is extremely strong, ensuring damage during backfilling is reduced to an absolute minimum. This property also allows the membrane to resist stresses due to temperature changes.

Oldroyd G ensures an effective protection for all types of foundation walls irrespective of depth under the surrounding terrain. Oldroyd G is also a cost effective method of ensuring a continuous and permanent drainage gap.

In the production of Oldroyd G the geotextile is welded to the underlying polypropylene thus ensuring maximum adhesion.

The membrane itself is 0.5mm thick. Oldroyd G is 100% watertight and resistant to all chemicals normally found in the ground. Together with special fastening materials, Oldroyd G provides a complete system for exterior wall and basement protection.



Easy to cut



Bends easily - fast in complex situations



The welded geotextile of Oldroyd G ensures permanent bonding.



A damp-free basement (left) provides useful working space.



Easy to cut, bend and fold, the fast way to apply a geotextile that will last...

## Application guidelines



Down

3. The edge of the membrane with studs will then be at the bottom.



4. Oldroyd G, fastened to the wall at the top, should be rolled out from right to left, thus ensuring that the geotextile faces outwards. If possible start at least 600mm from a corner.



5. Vertical joints should have an overlap of at least 200mm. A vertical joint should be at least 600mm from a corner and the distance between nails should be a 200 mm maximum.



8. Horizontal joints should have an overlap of at least 150mm.



9. If the level of the surrounding terrain has not been finalised at the start, Oldroyd G should be fastened so that it can be trimmed at the top when the terrain level is finally decided. NB! The top should be cut 150mm under the finished terrain, remember the top finishing profile.

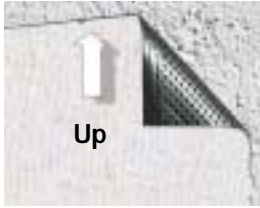
Oldroyd G membrane is an effective protection against undesirable moisture.

## Exterior Walls





1. It may be necessary to render the wall if it is of block construction.



2. Make sure that the edge of the membrane without studs is at the top and that the geotextile is facing outwards



6. fastening at top Oldroyd G is fastened through the flange.  
NB! Use either plugs or washers at intervals of 250mm to ensure firm fixing.



7. As an extra safeguard against the entry of earth or water and for a neat finish the Oldroyd edging profile is recommended.



10. After Oldroyd G has been fastened in place the ground drain should be laid. The drain should have a fall of 1:100 and be laid on a prepared bed of aggregate. The drain's highest point should be at least 200mm under the intended floor level.



11. The drainage aggregate to be placed around the drain should be separated from the surrounding earth by a suitable filter (separation) cloth. This is to ensure that the drainage function of the aggregate is maintained.



The terrain around the basement should have adequate falls to ensure that surface water runs away from the building.



12. Earth is then filled against the Oldroyd G until the correct terrain level is reached.



13. The terrain above Oldroyd G can be finished as desired.



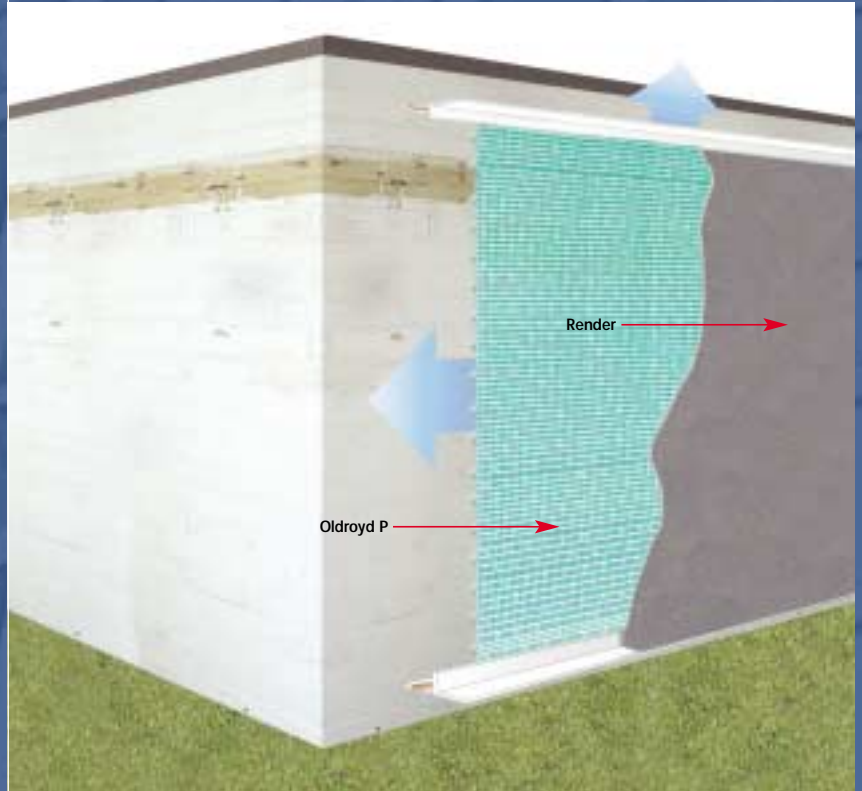
## The air gap technology mesh membrane to protect structures from the weather...

Damage and discolouration caused by damp is a continuing problem in many buildings.

The Oldroyd P membrane system provides an effective solution to the problem of moisture in external and internal walls.

- The air gap behind Oldroyd P allows the wall to 'breathe'.
- Consistent material thickness of membrane gives great strength.
- Excessive damp cannot accumulate to cause further deterioration.
- Residual dampness will be vented and dissipated.
- A range of strong polypropylene plugs and accessories provides an easy and secure method of fixing.
- The mesh is heat welded ensuring a much stronger bond than other membranes using glue.

Oldroyd P is made from stable, polypropylene 0.5mm thick formed into a pattern of raised studs. Polypropylene mesh is heat welded in the manufacturing process to the surface of one side, providing an incredibly strong, flexible, rot proof key for plasters and renders.



Oldroyd P is a patented design, no other range of membranes can provide these unique advantages:

- Made from stable polypropylene with a polypropylene mesh heat welded to the surface.
- Gives an exceptionally strong bond between the mesh and the surface of the membrane that will take a variety of plasters and renders.
- Unlike alternative brushed-on damp proof coatings, Oldroyd P does not rely on the structure for its performance.

## Exterior Walls





Product applications and technical information

## Oldroyd P

Oldroyd P is made from inert and stable, high density polypropylene 0.5mm thick formed into a pattern of raised studs. Polypropylene mesh is heat welded in the manufacturing process to the surface on one side. The studs 4mm high face the wall and create air channels.

The special design of the membrane and the use of polypropylene result in a product which is easy to install even in connection with complex constructional details. Polypropylene has fewer internal stresses and is thus much easier to handle than other membranes. It will not "spring back" when unrolled, and will recover easily if compressed.

### Strength and stability

Oldroyd P is inert and stable under high pressure. It is highly resistant to water, alkalis, saline solutions and acids. It is also resistant to bacteria, fungi and other small organisms.

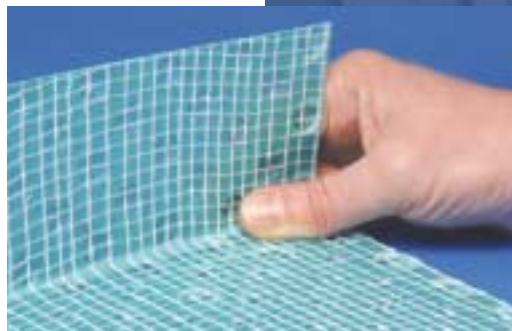
### The Benefits

Oldroyd P is a permanent barrier to damp. Alternative brushed-on damp proof coatings depend on the structure for their performance. Sheet membranes bonded to the wall fail when they are punctured, and over a period of time bitumen coatings may break down owing to soil acids or movement.

Oldroyd P is suitable for use in Historic Buildings and on conservation projects.



Easy to cut



Folds easily - for speed in complex fit situations



Withstands stress and movement.

P

ABOVE GROUND



# An effective solution to the problem of rain penetration...

## Application guidelines



3. Oldroyd P should be rolled-out and cut to the length required.



4. Holes can be drilled through the Oldroyd P into the walls to a depth of at least 50mm, using a 7 or 8mm bit depending on the substrate.



5. Oldroyd P is fixed using the special plaster plug. This should be used with the Oldroyd compression seal to achieve a completely waterproof fit.



7. Fixing centres should be between 250/300mm horizontally and vertically depending on the plaster finish. On curved or uneven surfaces, fixings should be closer.



8. The Oldroyd system ventilation profile should be used both top and bottom where possible.

Oldroyd P is light, clean and easy to handle. It can be cut easily with a sharp knife or scissors.

## Exterior Walls







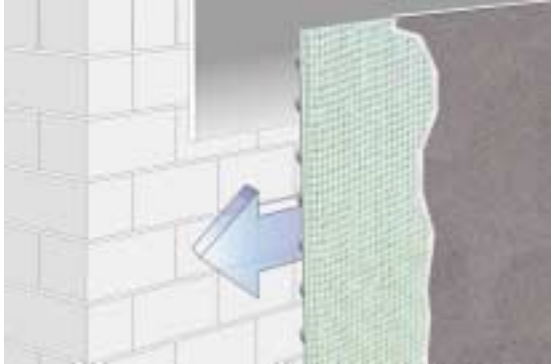
1. Oldroyd P provides a firm key and effective barrier to any damp or deteriorating surface.



2. The air gap behind Oldroyd P allows the wall to "breathe" and any residual dampness will be vented and dissipated.



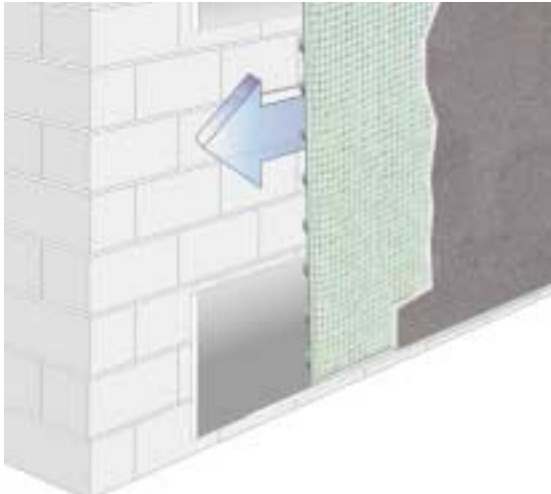
6. The plug is tapped home flush with the material. Do not use excessive force as a matting effect can occur.



Oldroyd P allows the wall to breathe



9. Plastering and rendering can now be applied.



P

ABOVE  
GROUND

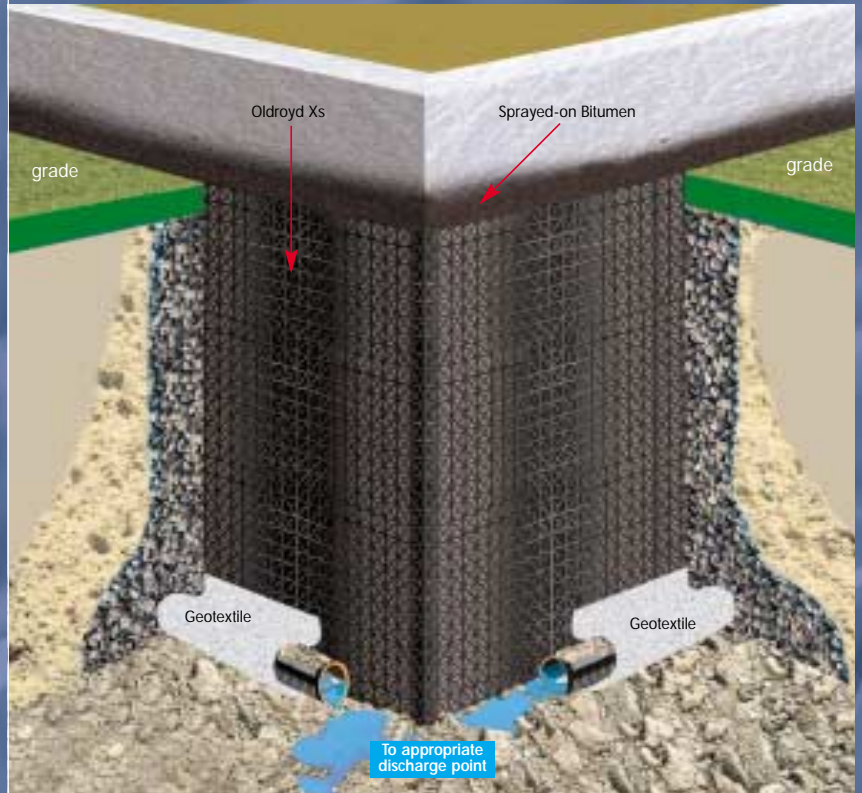


# The low profile solution to damp penetration from exterior walls and deep level foundations...

Oldroyd Xs membrane is part of a complete range of products designed to combat the problems associated with the ingress of water and dampness in exterior walls and basements.

Oldroyd Xs has a low profile making it particularly suitable for large scale civil engineering projects where pressure and movement are considerations.

- Provides a flexible barrier between the ground and exterior wall.
- Made from polypropylene it is easy to work with, even at low temperatures.
- Its unique design makes it as easy to apply around corners and over footings.
- Sticks to tar, allowing Oldroyd Xs to move with it during any settlement.
- Consistent material thickness of membrane gives great strength.
- A range of strong adhesive tapes provides an easy and secure method of fixing.



**Oldroyd Xs is a patented design, no other range of membranes can provide these unique advantages:**

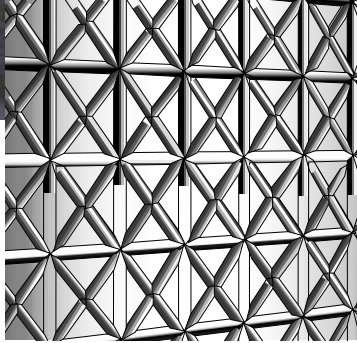
- The membrane with the unique X pattern. This makes Xs exceptionally simple to work with, and is the perfect membrane for use in deep-level foundation work in large-scale civil engineering and construction projects.
- The X pattern gives strength to the membrane making it resistant to tearing and movement in basement walls. It also creates an air gap and prevents the penetration of moisture. No other range of membranes combines polypropylene with an X pattern.
- The X pattern is patented. Only Oldroyd products have this and no other membrane is as easy to work with - saving you time, stress and money!

## Exterior Walls



Product applications and technical information

Xs



## Oldroyd Xs

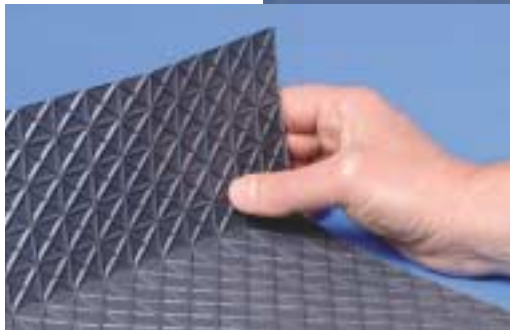
The primary function of Oldroyd Xs is to protect the wall from external moisture.

The combination of the unique X pattern, the patented design of the membrane and the use of polypropylene result in a product which is easy to install even in connection with complex constructional details.

Oldroyd Xs is thicker than conventional DPMS and has the added advantage of being able to marry up with other membranes in the Oldroyd membrane system.



Easy to cut



Folds easily - for speed in complex fit situations



Withstands stress and movement.



BELOW GROUND

# Technical Specifications...



Type	128-01	153-01	165-01	183-01	200-01	208-01	240-01	265-01
Width (m)	1.28	1.53	1.65	1.83	2.00	2.08	2.40	2.65
Length (m)	20	20	20	20	20	20	20	20
m <sup>2</sup> /roll	25.6	30.6	33.0	36.6	40.0	41.6	48.0	53

Type	128-01	128-02	208-01
Width (m)	1.28	1.28	2.08
Length (m)	10	20	20
m <sup>2</sup> /roll	12.8	25.6	41.6

Unit	Roll
Colour	Black
Raw Material	Polypropylene
Thickness	0.5mm
Stud height	-6.0mm
Total height	-7.0mm
Weight	0.53 kg/m <sup>2</sup>
Air gap	-5.0 l/m <sup>2</sup>
Vapour permeability resistance (SS 02 15 82)	10 x 10 <sup>6</sup> s/m
Tensile strength (ISO 527 MD*)	44 MPa
Elongation at break (ISO 527 MD*)	820%
Compression strength (ISO 527) (1.4mm deflection)	>160 kN/m <sup>2</sup>
Compression strength studs (ISO 527) (1.0mm deflection)	-250 kN/m <sup>2</sup>
Application temperature range	-20°C - +80°C
Vitac softening point	148°C
Emission (voc)	<10µg/m <sup>2</sup> h
Chemical resistance	Very good
Impact resistance very good down to	-20°C
Impact resistance good down to	-40°C
Life expectancy	>50 years

Unit	Roll
Colour	Grey
Raw Material	Polypropylene
Thickness	0.5mm
Total height	2.0mm
Weight	0.47 kg/m <sup>2</sup>
Air gap	-0.4 l/m <sup>2</sup>
Vapour permeability resistance (SS 02 15 82)	10 x 10 <sup>6</sup> s/m
Tensile strength (ISO 527 MD*)	44 MPa
Elongation at break (ISO 527 MD*)	820%
Compression strength (ISO 527)	>1000 kN/m <sup>2</sup>
Application temperature range	-20°C - +80°C
Vitac softening point	148°C
Emission (voc)	<10µg/m <sup>2</sup> h
Chemical resistance	Very good
Impact resistance very good down to	-20°C
Impact resistance good down to	-40°C
Life expectancy	>50 years

\*MD = Machine Direction

\*MD = Machine Direction



Finishing profile for Oldroyd P



Brick plug and compression seal



Compression Seal



Plaster plugs and seals



Plugs

## Exterior Walls

below and above ground



# ...and accessories



Type	150-01	200-20
Width (m)	1.50	2.00
Length (m)	10	20
m <sup>2</sup> /roll	15.0	40.0

Unit	Roll
Colour	Green
Raw Material	Polypropylene
Thickness	0.5mm
Stud height	~4.0mm
Total height	~5.0mm
Air circulation behind membrane	
Open/Free volume	3.1 l/m <sup>2</sup>
Total Volume	3.31 l/m <sup>2</sup>
Weight	0.53 kg/m <sup>2</sup>
Vapour permeability resistance (SS 02 15 82)	10 x 10 <sup>-6</sup> s/m
Tensile strength (ISO 527 MD*)	50 MPa
Elongation at break (ISO 527 MD*)	820%**
Compression strength (ISO 527)	>140 kN/m <sup>2</sup>
Application temperature range	-20°C - +80°C
Vitac softening point	148°C
Emission (voc)	<10µg/m <sup>2</sup> h
Chemical resistance	Very good
Impact resistance very good down to	-20°C
Impact resistance good down to	-40°C
Life expectancy	>50 years
Net	
Raw Material	Polypropylene
Mesh Width	~6 x 6mm

\*MD = Machine Direction

\*\*without net

Type	200-15
Width (m)	2.00
Length (m)	15
m <sup>2</sup> /roll	30.0

Unit	Roll
Colour	Black
Raw Material	Polypropylene
Stud height	6.5mm
Membrane thickness	0.5mm
Weight	0.53 kg/m <sup>2</sup>
Application temperature range	-20°C - +80°C
Vitac softening point	148°C
Tensile strength** (ISO 527 MD*)	44 MPa
Elongation at break** (ISO 527 MD*)	820%
Compression strength (ISO 527)	>300 kN/m <sup>2</sup>
Geotextile	
Grip tensile strength (IEN ISO 10319)	7.5 kN/m <sup>2</sup>
Tensile strength (Grab) (ASTM D 4633)	475 N
Elongation at max. load (EN ISO 19319)	75%
Puncture resistance (EN ISO 12236)	1175 N
Water permeability normal to plane (E DIN 60500/7)	260l/m <sup>2</sup> /s
Weight	115 g/m <sup>2</sup>
Membrane & Geotextile combined	
Studs	1796/m <sup>2</sup>
Drainage volume	~4.5 litres/m <sup>2</sup>
Total Weight	0.65 kg/m <sup>2</sup>

\*MD = Machine Direction

\*\* Without Geotextile



Gun Plugs



Brick plugs



Finishing profile for Xv



Steel nails with plugs

Xv

Xs

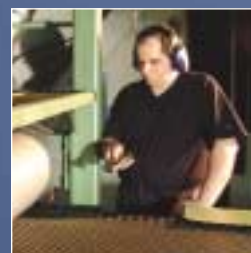
P

G

# Quality

Oldroyd offers a wide range of products supported by unrivalled technical back-up and customer service. We are constantly looking to introduce new products of interest to our customers. Our product portfolio includes a range of waterproof membranes for many applications found in today's construction industry. All our products are unique and include features not found in other membranes. A series of brochures are available explaining each of these in greater detail.

The company possesses the following ISO certificates:  
NS-EN ISO 9001:2000 and European Environmental Management System NS-EN ISO 14001.s



All products undergo further testing in addition to the tests required in order to comply with national and international regulations and directives.

Checking for straightness.

All Oldroyd membranes are exceptionally straight with no 'Banana-ing' and no weakening of the membrane.

## Exterior Walls

below and above ground

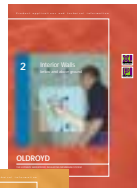


# Exterior Walls

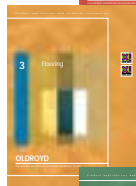
below and above ground

Oldroyd produce a wide range of products to combat the problems of water ingress and dampness in buildings . Other brochures are available covering the following applications:

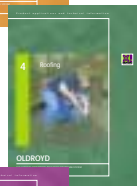
**Internal Walls**  
below and above ground



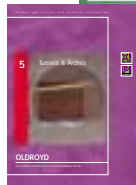
**Floors**



**Roofs**



**Tunnels and Arches**



The company possesses the following ISO Certificates: NS-EN ISO 9001:2000 and European Environmental Management System NS-EN ISO 14001

We reserve the right to make changes in design and specification.  
© Oldroyd Systemer 2002



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We have invested a great deal of time and resources into establishing working practices to ensure a consistent and measurable quality in all of our products.

Our quality procedures are far in excess of the standards demanded by the relevant authorities.

In addition, care of the environment is of great importance and environmental routines have been introduced and integrated into existing ISO systems.

