



Butyl Products Ltd.
Pond Guide

For beautiful garden pools.....



Butyl Products Pond Liner division has been manufacturing Butyl pond liners for over 35 years, and is the longest established company to do so worldwide, so we really DO know our business !

Garden ponds give hours of pleasure and are easy to install. You'll find everything you need to know right here. Take a look at our brochure, and if you need us — we're right here to help guide you through the process of lining your pond.

Butyl Rubber is non-toxic and harmless to both aquatic and plant life.

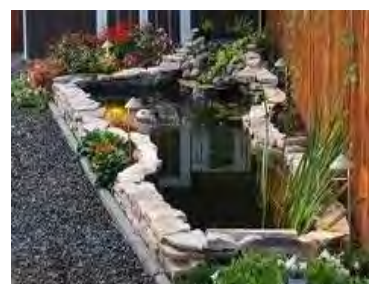
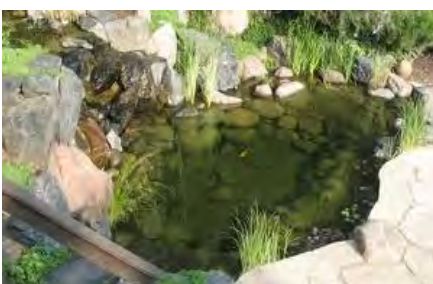
From small, ornamental pools, to large lakes, Butyl is infinitely adaptable to suit your requirements.



Butyl rubber liners will not be harmed by frost, sunlight, soil, rotting plants or chemicals.

20 Year warranty on Butyl flat sheet liners. Installation and on-site welding is also offered.

A Butyl rubber garden pool can provide a beautiful centrepiece and an interesting wildlife habitat for animals and flowers, that might not otherwise be found in your garden.





Company: Butyl Products Ltd.

Address: Lingfield House, 11 Radford Crescent, Billericay, Essex, CM12 0DW.

Tel: +44 (0) 1277 653 281

Fax: +44 (0) 1277 657 921

E-Mail: enquiries@butylproducts.co.uk

Web: www.butylproducts.co.uk

Business Hours: Mon—Thurs 8.30am to 5.15pm, Friday 8.30am to 1.00 pm.

Butyl Products Ltd., has been established since 1965 and specialises in the supply and installation of liquid and gas proof linings using a comprehensive range of materials for liquid containment (reservoirs, lakes, ponds etc.), chemical storage (tank liners) and contaminated ground protection (gasproof membranes, landscapes and cut off trenches). The company has a specialist Geomembrane Design Department, an extensive manufacture facility in Essex, and fully trained on-site installation engineers.

20 YEAR PRODUCT WARRANTY

Warranty Number:

Name of Recipient:

Warranty Period: 20 Years from date of supply

Location of Installation:

Description of Use:

Butyl Products Limited ("the company") warrants that the materials supplied by the company under this warranty shall be free from defects, and to be able to withstand normal weathering for the warranty period providing the materials are used in applications approved in writing.

The company shall not under this warranty be liable for any defect resulting from acts of God, fire, force majeure, earthquake, flood, piercing hail, malicious damage, tornado, abuse by machinery, equipment or people, excessive pressure or stress from any source, improper installation, subgrade settlement, or any event beyond the reasonable control of Butyl Products Limited.

Any claim for any alleged breach of this warranty must be made in writing to the company within 30 days after the alleged defect is first noticed.

The company's liability for breach of this warranty shall be limited to repairing or replacing the defective materials, using such workmanship as should result in providing the prorated performance remaining under this warranty.

Under no circumstances shall the company's liability under this warranty extend to, direct, indirect or consequential damages, arising from loss of production or other losses including, without prejudice to the generality of the foregoing losses due to a personal injury and product liability owing to the alleged breach of this warranty.

This warranty is non-transferable and is non-assignable

This warranty is given, so far as English law permits, in lieu of all other warranties either expressed or implied and by accepting delivery of the liner the purchaser waives all such other possible warranties except those specifically given. I hereby state that I have read and understand the above warranty and agree to such by signing hereunder.

Signature, Managing Director _____

SPE



Butyl Products Ltd.

Lingfield House, 11 Radford Crescent,
Billericay, Essex, CM12 0DW,
United Kingdom
Registration No: GB 3141465



Pond Lining—General Information

Lining Materials

Butyl Rubber

We have been producing this material for over 35 years and have installed many thousands of liners from small garden ponds to major company reservoirs. The material is specially formulated to be safe to all wildlife and plant life.

Butyl differs from most other synthetic rubbers as it is a fully cured and vulcanized product that is non-toxic

Butyl rubber is extremely flexible and will conform easily to any excavation shape. Its' life expectancy is over 30 years and it is the liner chosen for most professionally built water features.

Thickness

Butyl rubber can be supplied in a variety of thicknesses. Most common thicknesses for pond liners are:

0.75mm and 1.00mm

Flat Sheet

0.75mm Butyl is traditionally used with a Geotextile protection matting below and above. A sand base can be used as an alternative to Geotextile matting.

1.00mm Butyl is more likely to be used on a pond excavation where the liner will be left exposed.

Both of the above materials are covered by a 20 Year guarantee for flat sheet. A written copy of your guarantee can be provided on delivery of your order if requested.

Bespoke Shaped Box Liners

These can be produced from 0.75mm or 1.00mm Butyl rubber.

Box liners are the same as flat sheet liners in that they can be protected by Geotextile below and above (on the base) if necessary. Box liners are generally a more formal shape, vertical sided with or without shelves, such as reflecting pools or Koi ponds. Our bespoke box welded liners carry a 10 year guarantee. A written copy of your guarantee can be provided upon delivery of your order if requested.

1.00mm Butyl would be used if the corners of the box were to be left exposed.

Seams and Repairs

All flat sheet liners are provided in prefabricated panels with all seams overlap welded. Should some welds be required on site, we can carry this out for you. Alternatively, we can supply a double sided cold bonding tape (Fipec) for you to joint the material yourself. Cold bonded joints have a life expectancy of 5-10 Years.

Should the liner become damaged, we can provide a Butyl rubber repair kit for cold bonded repairs.

Geotextile Liner Protection (G3000)

Geotextile liner protection is a tough material produced from spun polyester fibre. The material has a density of 250gm / m² , is 2.25mm thick and has a puncture resistance of 2500N. The material is for placing below the liner to protect it from being punctured by rocks, roots and debris. If the pond is to be a wildlife pond and the liner covered with soil, stone or gravel, a further layer of Geotextile should be placed above the liner, below the earth cover.

Geotextile is supplied in rolls 2m (6ft 6ins) wide and cut to length to give the coverage required, **The material should be laid with 3" minimum overlaps and folded as necessary to fit the pond excavation.**

Pond Design

We can fabricate flat sheets up to 900 m² (9,600 ft² or 30m x 30m) in area. In addition to rectangular panels we can provide shaped panels to suit your excavation and save waste. We only charge for the area of material we supply.

Flat Sheet Butyl Rubber

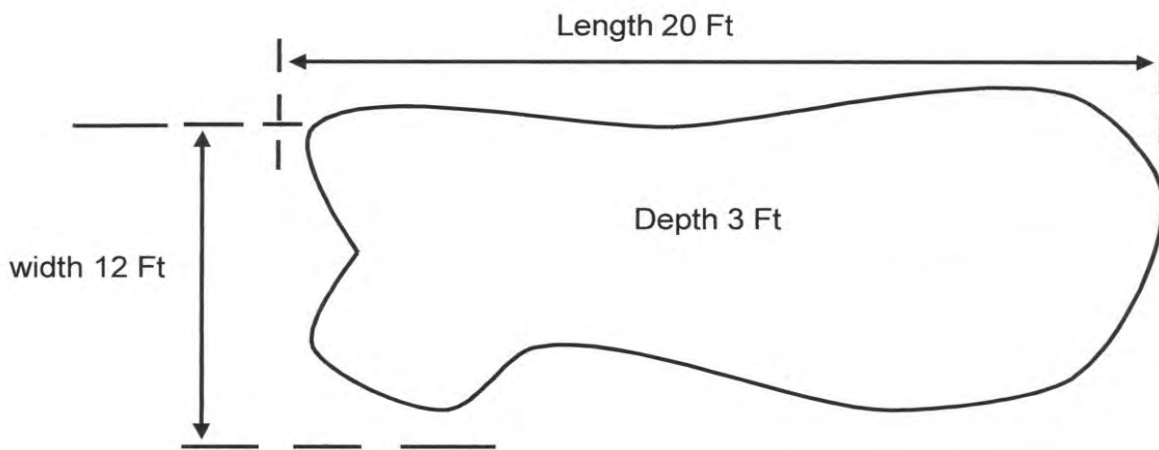
Calculating Liner Size Required

Measure the excavation, taking measurements at maximum length, maximum width and maximum depth. The liner size is calculated as follows:-

$$\text{Liner Length Requirement} = \text{Pond length} + 2 \times \text{Pond depth} + 0.6\text{m (2ft)}$$

$$\text{Liner Width Requirement} = \text{Pond width} + 2 \times \text{Pond depth} + 0.6\text{m (2ft)}$$

The additional 0.6m (2ft) is to allow for anchoring the liner around the periphery (up to 0.3m (1ft) each side), either below stones or anchored into the ground below turf.



Example:

For a pond 20ft long x 12ft wide x 3ft deep.

$$\text{Liner length (Pond Length)} = 20\text{ft} + (2 \times 3\text{ft}) + 2\text{ft} = 28\text{ft}$$

$$\text{Liner width (Pond width)} = 12\text{ft} + (2 \times 3\text{ft}) + 2\text{ft} = 20\text{ft}$$

Therefore, flat panel liner required in this example would be 28ft x 20ft

Digging the Pond



When you are ready to start, the first thing you need to do is plan the shape of the pond.

1. Mark out the shape of your pond by using a length of rope or hosepipe. Inspect your shape from different angles to ensure it is what you want.
2. When you are satisfied with the shape, mark it out by pouring sand around the perimeter and then remove the hosepipe / rope.
3. Start digging out the pond crater from just inside the sand mark, keeping all sides of the pond sloped at 20° angle to avoid soil collapsing into the hole.
4. If required, dig a series of steps descending to the bottom of the pond.
5. Outside the sand line, remove a strip of turf 450mm (1.5ft) wide and approximately 50mm (2") deep all the way around for the liner overlap.
6. Using a spirit level placed on a plank, check that the edges of the pond are level all the way around. Use the spoil from the hole to build up any low areas.
7. Check that any underwater steps are also level, as any uneven-ness will be apparent when the water is added.
8. Remove any protruding stones or other debris that could damage the liner.
9. Compact the sides of the pond so that it does not collapse later on.
10. Fit a protective underlay the same size as the liner into the hole. This is made from a woven material which is rot resistant and extremely difficult for sharp objects and roots to penetrate. Please see our Geotextile information page for further information.

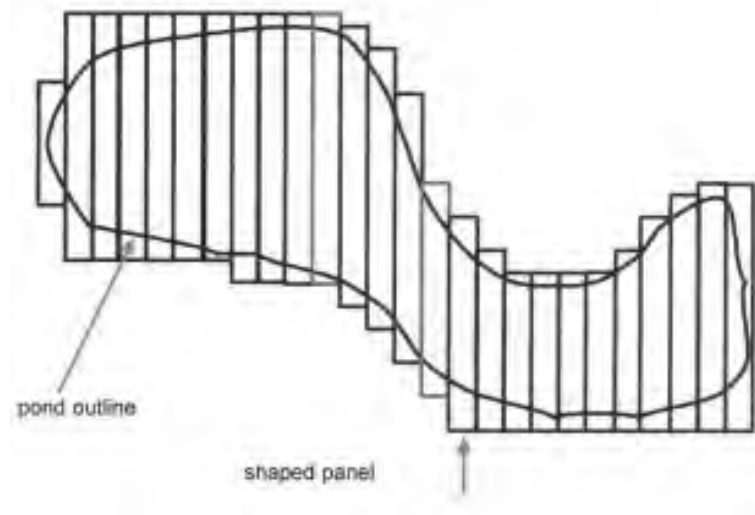
Flat Sheet Liners

Staggered

Once your excavation is dug, it may be beneficial for a staggered liner to be produced instead of a square or rectangular panel. This can be more cost effective as it reduces wastage.

To produce a staggered panel liner, all measurements must be taken through the excavation at 5cm centres.

Example →



Installation of a staggered liner would be the same as a flat sheet.

If required, we can offer a service where we come to site to take measurements and then supply a full copy quotation for supply, or supply and installation for larger projects.

Site visits are on a project by project basis and will be arranged by our sales & technical team.

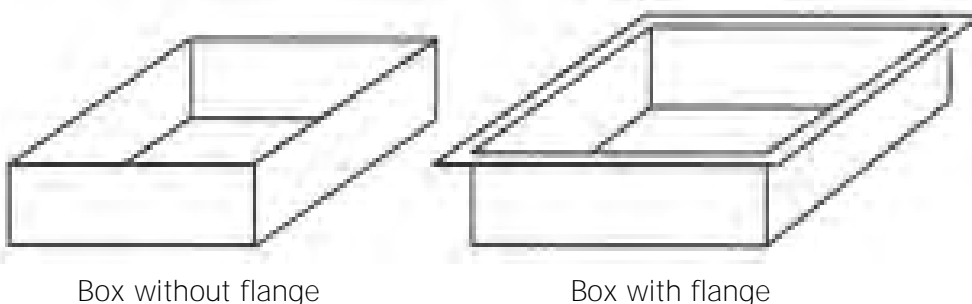
Box Liners

Square, rectangular or irregular shaped

We are able to make pre-formed box liners to fit various shaped excavations. Full drawings with measurements are required as this enables us to produce an accurate, close fitting liner.

If required, a flange can be welded around the top edge of the box which allows this to be held in place by fixing under capping stones or paving slabs. All sides of the excavation must be vertical to support the Butyl during installation.

Please call to discuss your projects and to obtain prices.



Unpacking your Liner

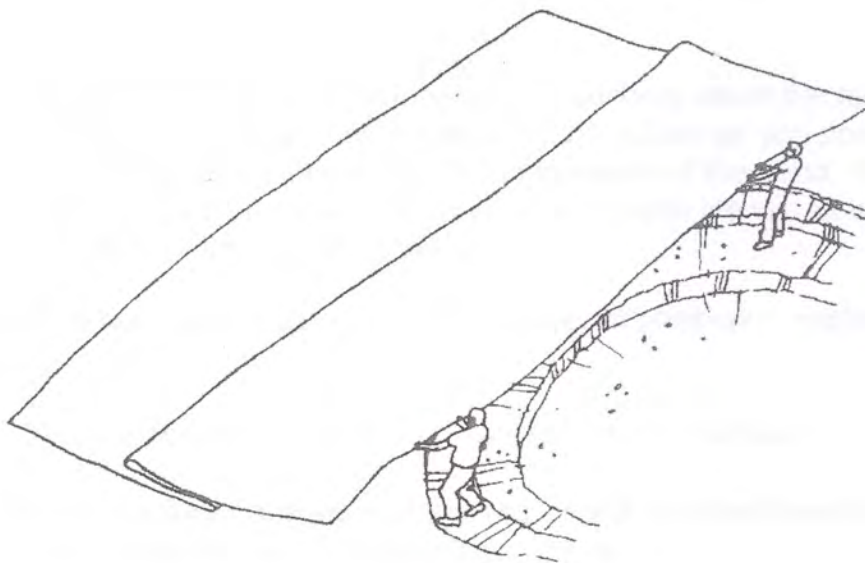
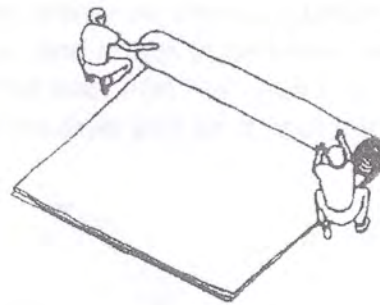
Rubber liners can be quite heavy, so we try to package them in ways that will simplify installation

Firstly, check the site to ensure that there are no sharp objects in or around the pond that could snag the liner. Position the liner at one corner of the pond and carefully unfold or unroll beside or in the pond if space is limited. Most of our liners are 'concertina' folded to help make this process as simple as possible.

Folded Liners



Rolled Liners

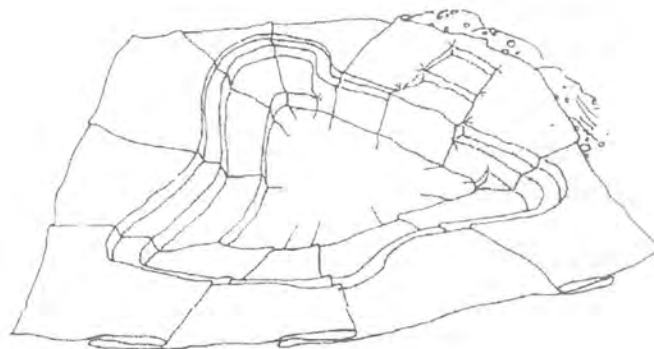


Installing the Liner



Having completed your excavation: -

1. Check the site and surrounding working area and remove any sharp objects that could damage the lining.
2. Install the Geotextile liner protection material, laying it to the excavation contours with a **minimum of 3" overlap between the strips.**
3. Position the liner at one corner of the pond, either on the surrounding land or in the pond. Carefully remove the wrapper and check to see that the roll is oriented in the correct direction. Unroll the liner and then pull it across the pond, flapping it slightly to force air under the liner and let it float into place.

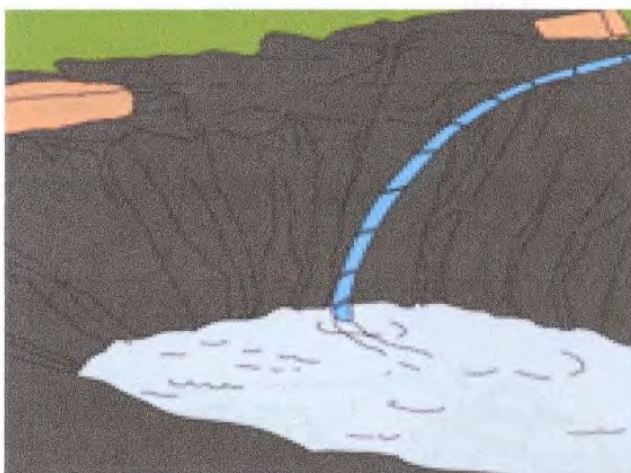


4. **Leave at least 6" to 12" on the ground surface, since the rubber will pull back as the pond is filled.** Avoid stretching the rubber as you position it. Just let it wrinkle and pleat naturally to fit the contours of the pond. If the side walls are steep it may be necessary to use a few smooth stones as weights to keep the liner from sliding in to the pond.
5. Position the second layer of Geotextile above the liner.
6. Place the liner covering material (soil, sand or stone) working from the centre of the pond outwards to the anchor trench.

WARNING !!

Children should be supervised in and around the area where a pond or pool is being excavated / constructed.

7. Fill the pond with water, letting the liner slip freely into the excavation and mould to the contours of the pond without stretching. Any stones or other weights used to temporarily position the liner must be lifted periodically as the water level rises. This is very important because permanent stretching can shorten the life of the liner when the pond is full.
8. Any excess liner material or liner protection Geotextile should now be trimmed ensuring sufficient remains for anchoring. Always try to cut gentle curves. The trimmings can be used to line streams and waterfalls, or as extra protection under pots and large stones that will be placed on the liner.
9. The liner should then be anchored permanently (by backfilling the anchor trench or completing with pond stone edging).
10. Leave pond for at least one week before introducing fish.



Finally: -

Our Technical Department will be pleased to help with any particular design or installation questions you may have.

Should you wish to send us your design ideas, or technical queries, please either call, fax or e-mail our specialist team at the contacts below.

T: +44 (0) 1277 653281

F: +44 (0) 1277 657921

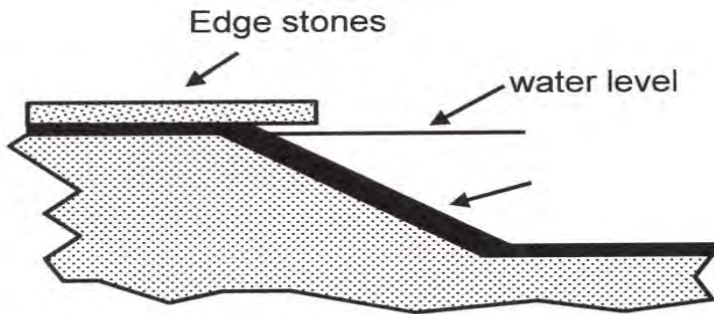
Technical Questions and queries:

adamd@butylproducts.co.uk

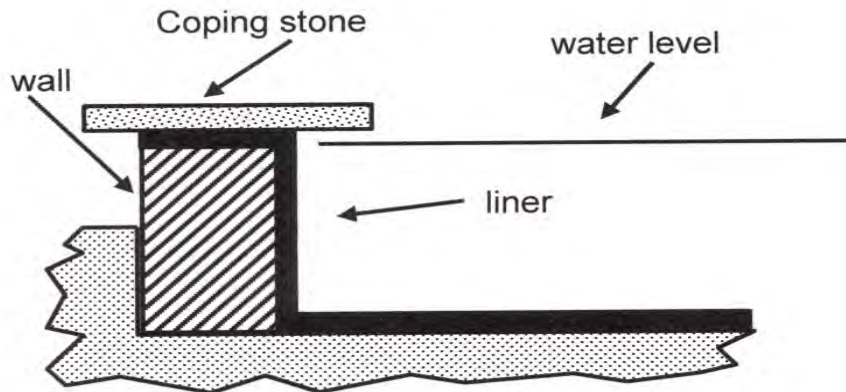
cristina@butylproducts.co.uk

Liner Edge Detail

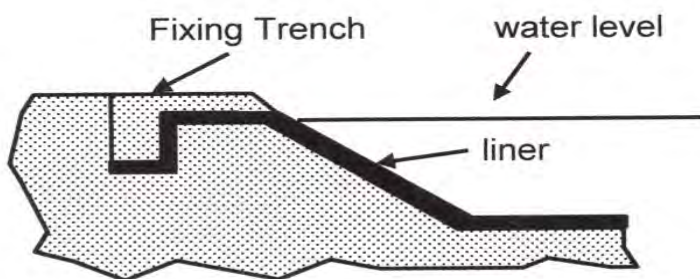
Please see below some examples of ways to edge your pond once installed. We believe these to be the best methods for an excellent finish to your project.



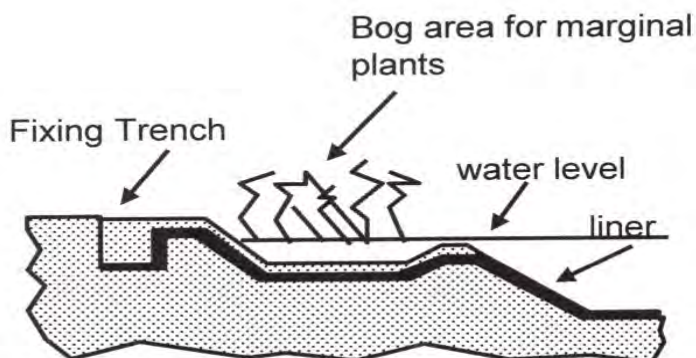
Edging Stones



Coping Stones

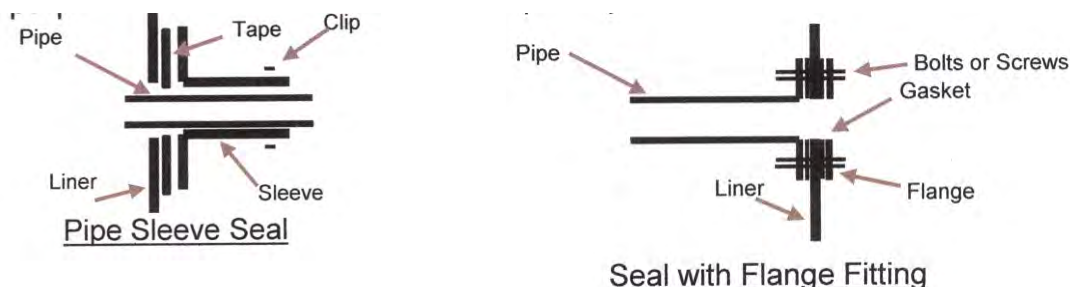


Trenches



Pipe Sleeves

During the preparation of your pond, whether flat sheet or box welded, it may be necessary to have a filler and an overflow pipe. Pipe sleeve kits can be obtained for this purpose.



As the diagrams show, you can either seal the liner by clamping it between pipework flanges or we can supply a pipe sleeve kit made specially to the outside diameter of your pipe which seals the liner directly to the pipe

Instructions for a Pipe Sleeve Kit

The kit consists of: -

- 1 x Fipec cold Bonding Tape
- 1 x Jubilee Clip
- 1 x Butyl Pipe Sleeve complete with flange
- 1 x Neoprene sponge strip

- Step 1** Cut a circle in the liner around the circumference of the pipe, leaving approximately a 1" clearance.
- Step 2** Place the pipe sleeve over the pipe and offer the flange up to the liner, mark around the flange with a crayon.
- Step 3** Ensure that the liner is clean within crayon border (a mild solvent such as Acetone or Toluene used sparingly with a cloth is suitable for cleaning material). Apply Fipec cold bonding tape around the inside edge of crayon border.
- Step 4** Remove backing paper from Fipec bonding tape. Place the pipe sleeve over the pipe and press the flange firmly into Fipec cold bonding tape all around the edge. Using a roller apply pressure all the way around to expel air and create a good bond.
- Step 5** Remove backing paper from Neoprene sponge strip and stick around the circumference of the pipe.
- Step 6** Tighten the jubilee clip and pipe sleeve where Neoprene sponge strip is located.

Repairs

If your pond is leaking and needs to be repaired:

Repair Kits: for repairing large areas of damage

The kit comprises 1m² of Butyl Rubber Flat Sheet and a 10mtr roll of Fipec double sided cold bonding tape with a hand roller to help ensure a good seal.

Area to be prepared and repaired as shown on page 16.

Full repair kit instructions are enclosed with the kit. (Please see next page for general instructions)

If you'd like to see a selection of our pond lining materials and geotextile protection, please call our sales team or send us an email at enquiries@butylproducts.co.uk with your request and full mailing details.

Fipec Repair Kit—Type 2000

Instructions for use

Minor Damage

1. Cut patch from Butyl sheeting supplied, to a size giving a minimum of 4" overlap all around the damaged area.
2. Ensure that both the patch and the damaged area are perfectly clean and dry. A mild solvent, i.e. Acetone or Toluene used sparingly on a cloth, will be suitable for cleaning. (**DO NOT** use diesel based solvents).
3. Draw a crayon line around the patch to check that the minimum 4" overlap is achieved and also, to serve as a guide line when replacing the patch.
4. Leaving the release paper in position, apply the tape to the cleaned patch. Butt Joint each strip until the total area of patch is covered. When covered, use either a light roller or hand pressure to the top of the release paper to expel all air between the patch and the tape.
5. Remove the release paper.
6. Apply the patch, tape down, to the damaged area ensuring the minimum 4" overlap all around the damaged area is achieved.

Major Damage

1. Cut the patch from the Butyl sheeting and clean the patch and damaged area as described in step 1 & 2 above.
2. To keep the membrane as near as possible in its original position while the repair is made, apply one or two pieces of tape across the damaged area.

Follow instructions 3 to 7 as described above.

Please Note:

Item 2 Petrol dampened rag may be used sparingly if solvent is not available.

Item 4 A Milk Bottle or similar may be used if a roller is not available.

Delivery

Once liners have been manufactured for you, they are rolled or folded and wrapped in Geotextile to protect from damage during transit.

When liners are folded, the directions of the folding are clearly marked on the liner wrapping which will help with installation.

The liners are then either dispatched as single items or if they are over a certain weight and size, must be strapped to a pallet for transportation purposes.

We use several different Carriers depending on the size and weight of the consignment.

If your liner is over 30m², assistance will be required upon delivery. Any liner over 60m² will require mechanical assistance when delivered to site.

To give you some idea on how to work out the weight of your liner, please see below:

0.75mm Butyl liner weighs approximately 0.82 Kilo's per m²

1.00mm butyl liner weighs approximately 1.20 Kilo's per m²

Consignment weights can be supplied by our sales team upon placing your order so that delivery requirements can be arranged if necessary.

Please Note: All items delivered must be signed for.

Deliveries can be made to alternative addresses if it is easier for a signature to be obtained.

Full delivery address details including postcode will be required when you place your order.



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