

# The pleasures of a water garden



**Firestone**



*Lining for Life™*

## Quality begins at the bottom

Today, everyone can easily take the plunge with water gardening. To succeed and enjoy the water garden lifestyle, your choice of lining material is of vital importance. Firestone PondGard™ is the professional's choice and has been successfully installed in thousands of water features worldwide with a multitude of uses:

- Decorative ponds
- Koi ponds
- Reflection ponds
- Waterfalls
- Streams
- Fountains
- Lakes
- Golf course ponds



ISO 9001  
FM 32845



Standards Worldwide

# CE



## Over a century of experience

Firestone PondGard is developed by Firestone, the premier name in rubber technology. Since its beginnings in 1900 up to the present day, Firestone has served its customers with rubber products designed to perform and endure the test of time. This tradition of quality is extended to the lining industry through Firestone Building Products, a global leading manufacturer of rubber waterproofing membranes.

## Firestone Green

As a leading international manufacturer, Firestone Building Products plays a key role in protecting the environment. We are committed to offer sustainable products and manufacturing processes. Our commitment to a greener planet has also lead to numerous environmental initiatives throughout our company.





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## The Rubber Liner of choice

Firestone PondGard is a high performance rubber liner offering a unique combination of benefits which have long been recognized by professional landscape installers and architects:

- **Easy to install** - Installation of Firestone PondGard is simple, as the material is lightweight, easy to position and available in a variety of large, seamless sheet sizes up to 50' (15.25m) in width and 200' (61m) in length.

For the construction of larger water features, multiple Firestone PondGard sheets can be assembled on site using the Firestone QuickSeam™ Tape System. No special tools or skills are required.

- **Flexible for creative design** - Firestone PondGard remains highly flexible even at -49°F (-45°C), enabling year round installation. Easily shaped to fit the contours of unique forms, Firestone PondGard means creative freedom and the ability to accomplish even the most challenging designs.

- **Lasting durability** - Firestone PondGard offers outstanding resistance to UV exposure, ozone, frost, snow and extreme temperatures. Our liner contains no migrating plasticizers, which ensures no cracking or splitting. Even after more than two decades in service, water features built with Firestone PondGard are as functional and beautiful as the day they were installed.

- **Environmentally friendly** - Firestone PondGard is specially formulated to be safe for fish and aquatic plant life. This guarantee is confirmed by the special marking on the membrane.

Being a highly stable membrane, Firestone PondGard also resists microbial and algae attack, resulting in naturally healthy ponds.

Furthermore, Firestone Building Products' production plants have received ISO 14001 certification for their Environmental Management System.

## A wide variety of roll sizes

Firestone PondGard is available in a variety of standard roll sizes to accommodate the requirements of any pond size. Special sheet sizes are available upon request.

**Standard widths:** 10' (3.05m), 15' (4.27m), 20' (6.1m), 25' (7.62m), 30' (9.15m), 40' (12.12m), 50' (15.25m)

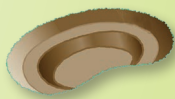
**Standard lengths:** 100' (30.5m), 150' (45.75m), 200' (61m)

**Thickness:** 0.045", 45 mil (1.14mm)

**Weight:** .31lbs/sq ft (1.25 kg/m<sup>2</sup>)

*Note: not all standard roll widths are available in all lengths. Please check with your PondGard Dealer.*

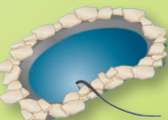
## Installation steps



Excavate a hole to conform to the required pond shape. The side banks should be made sloping inwards. Cut out deep areas (*approx. 31.5" (80cm) for small ponds and 39" (100cm) for large ponds*) and shallow areas (*approx. 10" (25cm)*) for plants as illustrated.



Remove any sharp stones or roots and spread a good layer of sand over the base of the pond. Place a geotextile fabric as underlay before installing the liner. Do not drag the liner but unfold it carefully as to avoid sharp stones or other such objects cutting into the membrane. Anchor the edge of the liner with smooth sided rocks.



Gradually run water into the pond, pleating and tucking the liner into shape. At first the liner will stretch, then as the volume of the water increases the liner will move inwards to the shape of the slope sides.



Trim off surplus material with scissors allowing sufficient overlap around the pond perimeter for anchorage.

## Low maintenance

Firestone PondGard is a liner for life requiring little or no maintenance once installed.

Should the need arise, Firestone PondGard liner is easy to repair on site.



## The pleasures of a water garden

Adding a water feature to your garden will enhance the quality of your life. It creates a little piece of paradise where you can watch fish and frogs darting across the water surface, smell the perfume of flowering water lilies, relax by the sound of moving water or enjoy a natural swimming pool with family and friends. The pleasures of a water garden will improve your outdoor living space and add value to your home.

## How to calculate quantity of liner

Start by measuring the pond's longest, widest and deepest dimensions in feet.

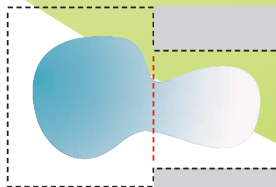
Length: A	Width: B	Depth: C
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To calculate total <b>WIDTH</b> of liner needed:		
Width:	B	PLUS
2 x Depth:	2xC	PLUS
2 Extra Feet		
<b>Total Width =</b>		

To calculate total <b>LENGTH</b> of liner needed:		
Length:	A	PLUS
2 x Depth:	2xC	PLUS
2 Extra Feet		
<b>Total Length =</b>		

When installing free form shapes, multiple panels can give you greater flexibility and save you money. As you can see below, this multi-panel layout, orients along the longer dimension and uses less liner than a single panel would.

See the red dotted line where the multi-panel liner is seamed together. The seamed liner must extend above the water line, so it may be properly anchored. The white area indicates savings that offset some or all seaming expense.



# Firestone



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