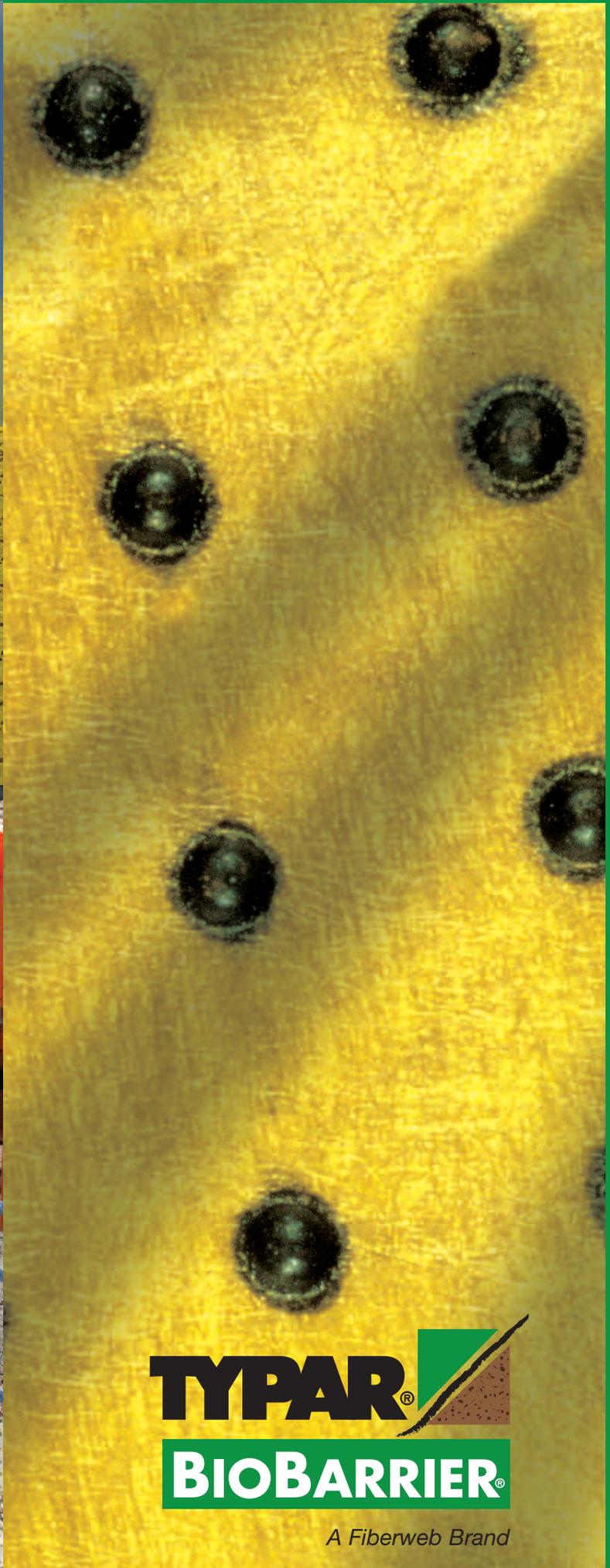
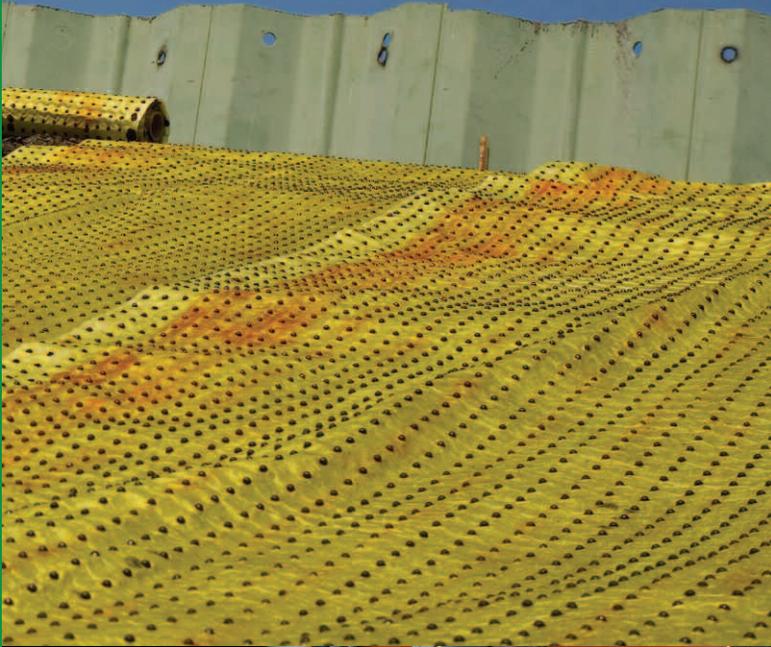


*Guaranteed Protection
AGAINST Root Damage*



TYPAR[®]
BIOBARRIER[®]

A Fiberweb Brand

Hardscapes and landscapes are a big investment, and traditional methods of protecting them have meant *repeatedly* spending time, effort and money. But a one-time installation of Biobarrier® Root Control System or Biobarrier® Weed Control System means years of security from roots or weeds growing where they're not wanted. Constant maintenance is a thing of the past with these easy-to-use systems, allowing you to spend your time and budget in other areas.

The interesting looking nodules on the durable geotextile drainage fabric are the secret to our success. They contain trifluralin, and the way it works is simple. Roots grow when root tip cells divide, and trifluralin prevents root tip cell division. Proven by more than 35 years of agricultural use, trifluralin is an effective, non-systemic herbicide; it simply creates a zone around your hardscape and landscape investments that inhibits root growth.

When Biobarrier is used for root control, tree roots reaching the zone of trifluralin are redirected, while roots outside the zone continue to grow naturally. When Biobarrier is used for weed control, the root systems of weeds do not grow in the trifluralin zone next to the fabric; roots of trees and shrubs in the same area are below the zone and are not affected.

We *do* look different and we *are* different; that's why we're effective. In fact, we guarantee Biobarrier's performance.

Biobarrier® Root Control System

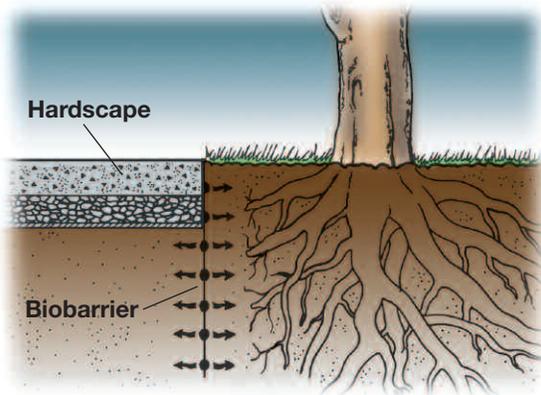
Trees and shrubs add value and beauty to property, except when their roots grow into hardscapes, such as sidewalks, buildings and roadways, or into landscaped areas, which are well watered. Then the damage can cost you plenty.

Biobarrier Root Control System protects your hardscapes and landscapes from damage caused by tree and shrub root intrusion. We guarantee it for 15 years.

Biobarrier works invisibly to deflect roots. Its nodules slowly release trifluralin, preventing root tip cell division, which is the method by which roots grow. A small amount of trifluralin is constantly released and as it biodegrades, is continuously replaced, ensuring the effectiveness and long life of the herbicide zone.

Placed beside the object you wish to protect from root damage, Biobarrier creates a zone of protection on all sides of the nodules. Roots growing into the zone are redirected while roots outside the zone continue to grow normally; tree health is not impacted since trifluralin is not systemic.

Simply place Biobarrier in a narrow trench where protection is needed. Since the system includes a standard drainage fabric, Biobarrier allows water, air and nutrients to pass through, not adversely affecting soil hydrology. Complete instructions are available to ensure proper installation.



All Around Root Control

Along Hardscapes

Biobarrier is most frequently used along hardscapes such as sidewalks, retaining walls, parking lots, buildings, swimming pools, foundations and other structures to prevent damage from roots. Preventing that damage for 15 years reduces the chances of injury and potential liability, as well as the costs associated with preventive maintenance and damage repair.

Around Pipes

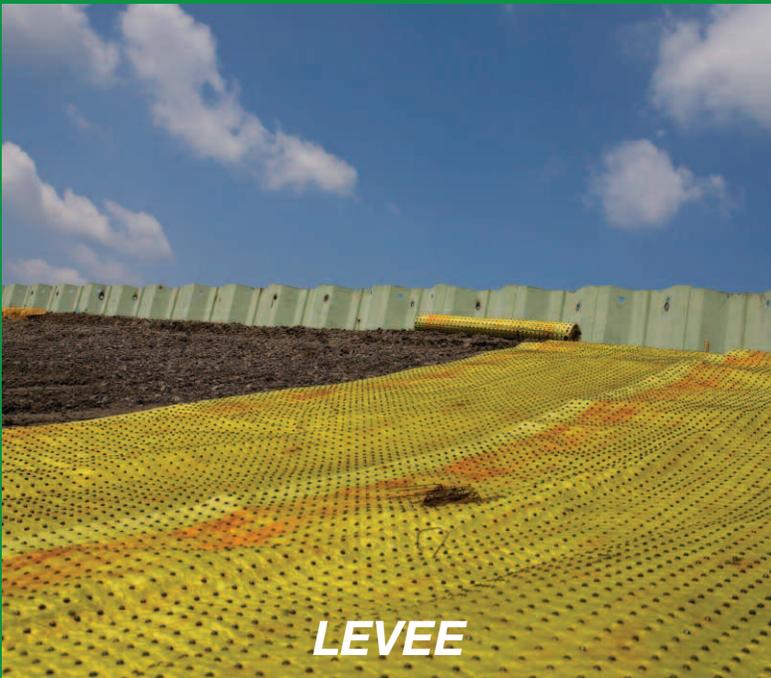
Tree roots seek out moisture, finding the smallest of openings to begin breaking their way into a liquid-carrying pipe. Biobarrier prevents roots from penetrating pipes for at least 15 years, so you won't have to worry about digging up and replacing them because of leaks caused by tree roots.

Under Pots

Tree growers have discovered the value of Biobarrier in Pot-N-Pot production because it improves plant growth by reducing the damage to roots caused by conventional harvesting methods. Used inside the larger pot, Biobarrier prevents roots from growing through drain holes and attaching to native soil. Because the roots are contained within the pot, less labor is required for harvesting and less damage to roots is caused as trees are removed.

In Dams/Levees

Tree roots can grow into the mechanisms of dams and levees, causing potential havoc and the failure of equipment that can result in flooding. Biobarrier ensures the integrity of the dam or levee from roots; at the same time, it allows trees and shrubs to beautify the area.



LEVEE



ROOF GARDEN



RETAINING WALL



CURB



GUARDRAIL

Root and Weed Control System
Zone of protection on either side of the fabric
Affect only root tip cell division
Porous to allow water, air and nutrients through
Flexible fabric fits any application
Easy to cut to size



Trifluralin
Lower acute oral toxicity than table salt or aspirin
Biodegrades when released in the soil in one to six months
Extremely low water solubility of 0.3 ppm, so unlikely to leach
Tightly bonds to soil, reducing potential for migration
Non-systemic

Biobarrier® Weed Control System

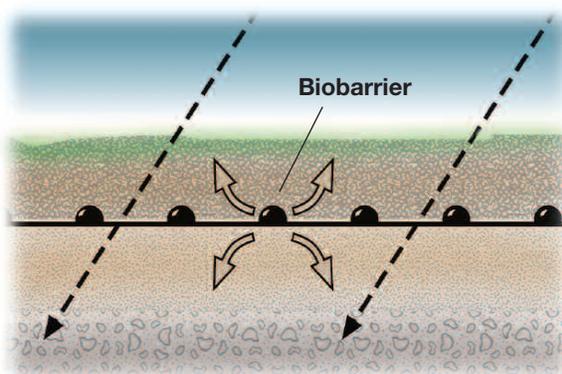
Weeds do more than create an unsightly appearance. They compete with desired plants for nutrients and water and can cause dangerous visibility and fire problems. The various traditional methods of dealing with weeds - pulling them by hand, which is not always effective since roots can break and remain; using sprays that can drift into desirable plants or contaminate water; or mechanical weeding - can place workers in unsafe situations. In addition, the time and money necessary for this kind of constant maintenance can be prohibitive.

Biobarrier Weed Control System protects your landscape from sustained weed growth. In fact, we guarantee it for 10 years.

Placed on the ground like a landscape fabric and covered with up to two inches of stone, mulch or other cover material, the trifluralin in our weed control is slowly released from the nodules. Trifluralin has been proven by over 35 years of agricultural use to prevent weed growth between row crops, and it works because root tip cells cannot divide in the presence of trifluralin. The constant release of trifluralin from our weed control creates a narrow (approximately 2 inches) zone on either side of the fabric. Biobarrier is effective because the zone of trifluralin extends into the stone, mulch or other cover material. Since weeds are unable to develop a strong root system in the presence of trifluralin, they are unable to survive when their roots reach the zone. Our weed control is more effective long-term than any landscape fabric available.

Trees and shrubs, which have roots below the trifluralin zone, can continue to grow and support the plant. Because Biobarrier is porous, water, air and nutrients can flow through it and not disturb the soil's hydrology. The trees and shrubs you want around will still be able to get the ingredients necessary for their good health.

Our lightweight Biobarrier Weed Control is easy to install because it follows ground contours naturally. Simply remove stones, debris and vegetation, and unroll the fabric over the area. Pull the fabric close to the trunks of trees and shrubs; it will not hurt to touch them because the herbicide only affects root tips. Cover it with two inches of stone,



mulch, soil or some other ground cover. Place any leftover fabric in the package it came in, and use the provided tie to seal it to prevent the loss of trifluralin. Complete installation instructions are available and should be followed for proper results.

All Around Weed Control

Around Trees

Weed growth around trees robs them of necessary water and nutrients. In addition, weeds are unattractive and can be harmful since mowers and weedeaters can cause damage to trunks if they get too close. Mulch is frequently used to reduce weed growth, but in many cases, too much is used, which can also damage tree trunks. The Biobarrier Tree Skirt reduces the amount of mulch needed and is pre-cut in two convenient sizes for ease of use. Landscape pins are provided.

In Dangerous Locations

Controlling weeds in sensitive areas such as around highway guardrails, street signs and utility substations can put workers in jeopardy, raising the possibility of injury. Guaranteed for 10 years, Biobarrier Weed Control is a long-term solution, which results in reduced maintenance and improved appearance.

In Landscaped Areas

Landscaped areas are well-watered and richly fertilized, ideal conditions for weeds as well as for more desirable plants. Strategically placed, the zone created by Biobarrier Weed Control inhibits weed root development while allowing trees and shrubs to grow.

Examples of Intended Biobarrier® Uses & Roll Widths

Root Control width in. (cm)	12 (30)	19.5 (50)	24 (61)	29 (74)	39 (99)	58.5 (149)
Building Foundations					*	*
Burial Vaults/Tombstones						*
Containers			*	*	*	*
Curbs		*	*			
Drain Lines	*	*	*	*	*	*
Earthdams						*
Golf Greens/Tees/Cart Paths		*	*	*	*	
Landfills						*
Medians			*	*	*	
Paths	*	*	*	*		
Planting Beds		*	*	*	*	*
Pot 'N Pot	SOLD IN 6" X 12" SWATCHES (500 per box)					
Pots	*	*				
Retaining Walls				*	*	*
Roads		*	*	*		
Roof Gardens					*	*
Septic Tanks/Fields						*
Sidewalks		*	*	*		
Swimming Pools		*	*	*	*	
Tennis Courts		*	*	*	*	
Underground Pipes/Cables	*	*	*	*	*	*
Underground Storage Tanks						*
Utility Substations		*	*	*	*	
Biobarrier Root Control is available in 20 ft. (6.1 m) or 100 ft. (30.5 m) roll lengths						

Weed Control width in. (cm)				29 (74)	39 (99)	58.5 (149)
Fence Rows				*	*	*
Guardrails				*	*	*
Landscaping				*	*	*
Pavers				*	*	*
Street Medians				*	*	*
Tombstones				*	*	
Tree Skirts						*
Utility Substations						*
Biobarrier Weed Control is available in 50 ft. (15.3 m) or 100 ft. (30.5 m) in both 39 & 58.5 in. widths and 300 ft. lengths for 29 in. width						

This chart is a general guide only. Your specific applications may require slightly different sizes. As a general rule, the greater the fabric width, the greater the degree of protection against costly root damage. But, like any other root barrier the protection does not extend beyond the edge of the fabric. So it's important to use adequate length and width to assure proper protection.



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TYPAR® and Biobarrier® are products of Fiberweb™. We recommend wearing gloves, long sleeves and goggles to prevent staining of the skin. Although every possible effort has been made to ensure the accuracy of the information in this brochure, no liability is assumed with respect to the use of the information herein.

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