



BIOBARRIER®

See what
Biobarrier
can do for
you!



Background

In the 1970s, the US Department of Energy needed a solution to prevent the overgrowth of contaminated vegetation in hazardous landfill sites.

Roots could enter the waste and through growth could transport the active, hazardous material into the plant aerial portion, presenting the possibility of environmental dispersion.

A laboratory was commissioned to identify a means to prevent root penetration of the site seal cap.

An impregnated controlled release polymeric device using a preemergence herbicide was developed.

Reemay Inc. (now Fiberweb/Typar) licensed this technology and commercially developed a viable process & product using its nonwoven fabric (Typar) as the carrier.

Biobarrier was introduced into the marketplace in 1986.



What is Biobarrier?

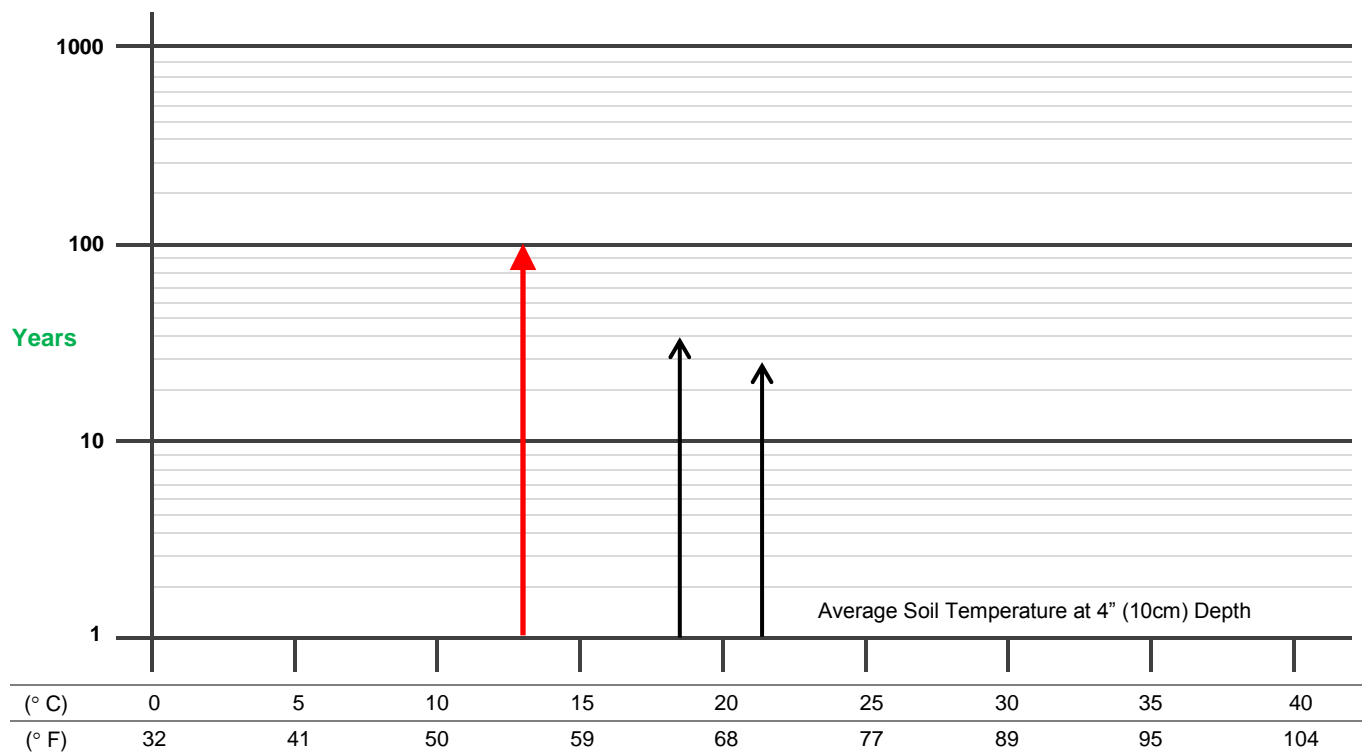
- A long-term root and weed control system.
- Consists of controlled-release nodules impregnated with Trifluralin herbicide.
- Trifluralin is non systemic... therefore plants and surrounding vegetation are not harmed.
- Toxicity level of Trifluralin is less than table salt, aspirin, nicotine and most major brands of lipstick.
- Nodules are permanently bonded to 4 oz. Typar Geotextile fabric.
- It does not disrupt soil hydrology since water and nutrients pass easily through the fabric.
- The only membrane homologated by PMRA (Government of Canada) for commercial and domestic application.



Biobarrier Effective Life

Trifluralin is released based on the soil temperature. The cooler the soil, the slower the release.

By maintaining a constant temperature of 13°C, 100 years of performance will be achieved.



Based on the above chart, Biobarrier's performance could well exceed the guarantee of 15 years.

EPA Toxicity Classification (Environmental Protection Agency, U.S.A.)

Class	Toxicity	Level
I	Extremely Toxic	< 50
II	Highly Toxic	50 – 500
III	Moderately Toxic	500 – 5,000
IV	Practically Non-Toxic	5,000 – 10,000

Oral LD₅₀ (mg/kg) for rats

Examples		
Class II	Nicotine - Highly Toxic	53
Class II	Caffeine - Highly Toxic	192
Class II	Aspirin - Moderately Toxic	1,000
Class III	Table Salt - Moderately Toxic	3,000
Class IV	Biobarrier (Trifluralin) – Practically Non-Toxic	> 10,000
Class IV	Grain Alcohol	14,000
Class IV	Table Sugar	29,700

Biobarrier Active Ingredient (Trifluralin) Environmental Fate

Water Solubility	< 0.3 ppm at 25°C
Half Life:	
Aqueous photolysis	9 hours
Air photolysis	42 minutes
Soil photolysis	41 days (light) 66 days (dark)
Soil degradation	1 to 6 months

Are roots and weeds really a problem?? You decide.....

Tree roots can cause extensive damage
and is very expensive to repair.
It can also create a safety hazard...

Don't let this happen to you!



Foundation Cracks



**Sewer Pipes &
Septic Systems**



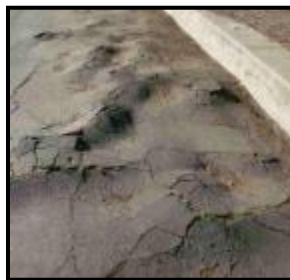
French Drains



Sidewalks



Bicycle Paths



Roads & Driveways



Pavers / Interlock

Weeds are an eye sore and are difficult to control.

Vegetation overgrowth and weeds can also affect your safety and security.....



Fire Hydrants

Highways & Roads



Utility Stations (Hydro Electric, Natural Gas, and Railway)

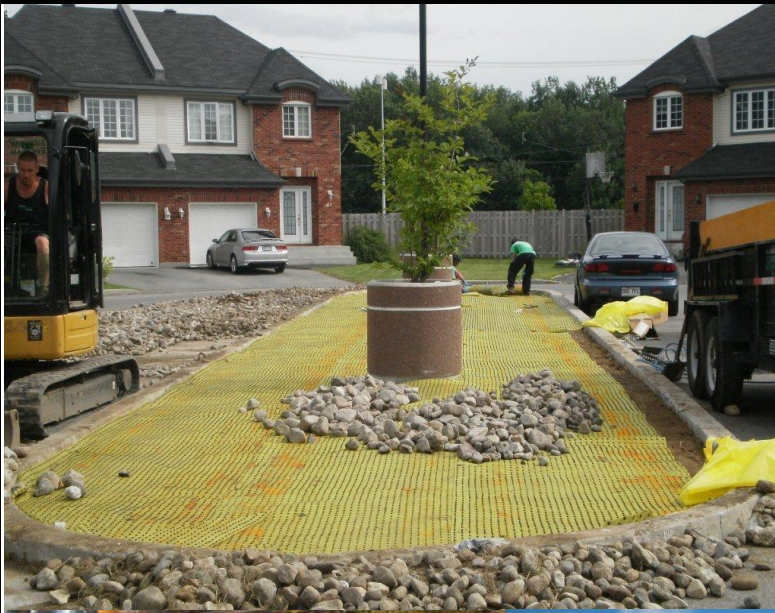


Sidewalks, Pavers and Along Fences



Some of the many applications of Biobarrier

*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*



Product List

PART CODE	ROLL WIDTH	ROLLS	LBS	SQUARE FEET
102 linear feet (34 linear yards)				
4407-011	58.5" (1485.9MM)	1	59	497
4407-008	12" (304.8MM)	1	14	102
4407-006	19.5" (495.3MM)	1	21	166
4407-169	29" (736.6MM)	1	30	247
4407-004	39" (990.6MM)	1	40	332
21 linear feet (7 linear yards)				
4407-010	12" (304.8MM)	1	4	21
4407-177	19.5" (495.3MM)	1	6	34
4407-168	29" (736.6MM)	1	9	61
4407-158	39" (990.6MM)	1	12	68
4407-138	58.5" (1485.9MM)	1	17	102
100 linear feet				
4407-101	24" (609.6MM)	1	26	200
20 linear feet				
4407-100	24" (609.6MM)	1	8	40
100 linear feet				
4407-020	6" (152.4MM) x 1LF	500	33	250