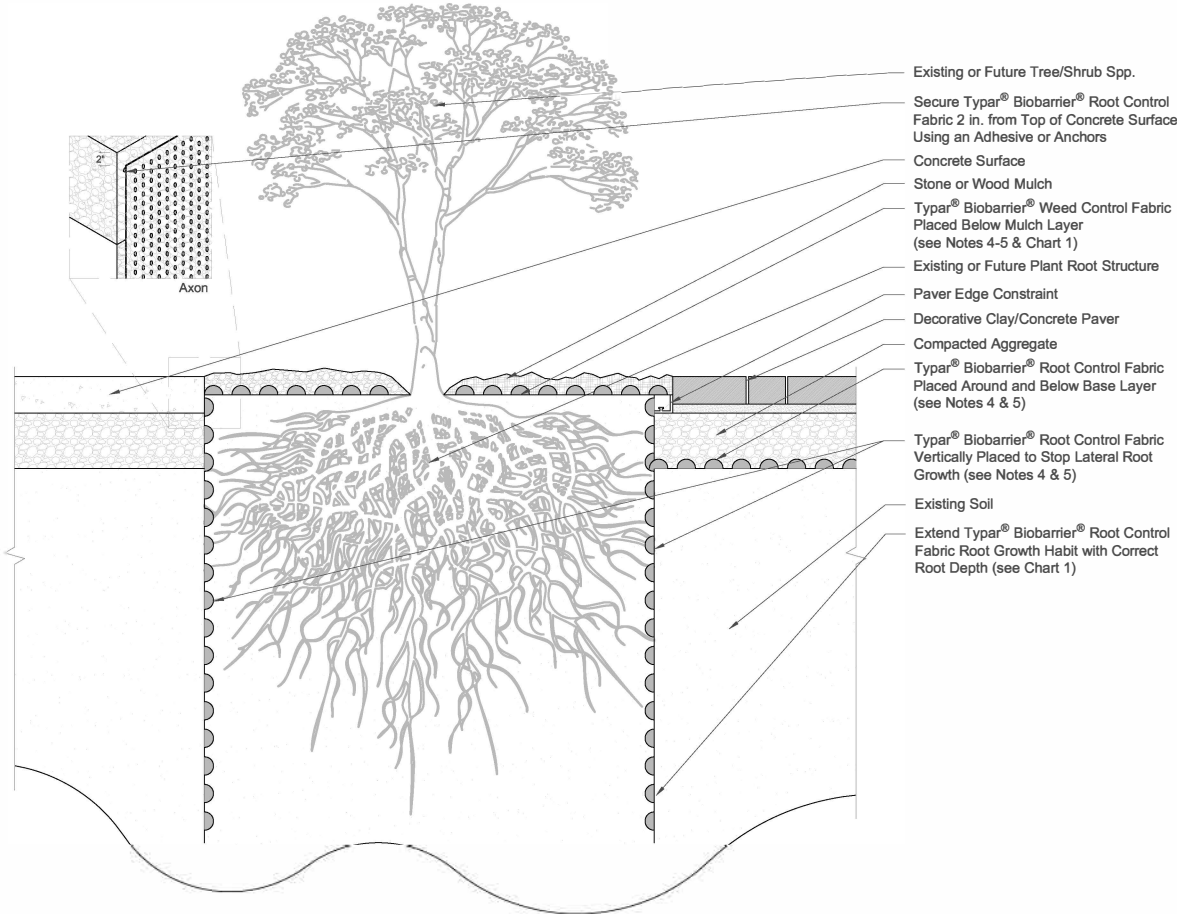




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Biobarrier® : Typical Surface Protection Applications
Scale: N.T.S.

This Detail shows multiple Biobarrier® application methods for protecting hardscapes and surfaces from tree root damage. Individual projects may vary in their need for horizontal and vertical root/weed Biobarrier® protection. Please contact Polymer Group, Inc. for technical assistance.

Chart 1 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.

This field guide is provided as an aid to assessing root control in commonly encountered site conditions. Polymer Group Inc. accepts no responsibility for any loss or damage resulting from the use of this guide.

Please note that the information above is given as a guide only. All sizes and weights are nominal figures and may vary to what is published. Polymer Group Inc. cannot be liable for damage caused by incorrect installation of this product. Final determination of the suitability of any information or material for the use contemplated and the manner of its use is the sole responsibility of the user and the user must assume all risk and responsibility in connection therewith.

NOTES:

- Note 1: Contact your utility company prior to trenching. Consult a professional arborist if root trimming is required.
- Note 2: Install & Cover Biobarrier® as soon as possible (within 12 hours) after opening. High temperatures and direct sunlight can reduce effective product life.
- Note 3: Dig trenches a minimum of 4 in. wide for Typar® Biobarrier® Root Control Fabric. Trenches must be a minimum length of mature plant canopy plus (+) 10 ft., centered on the root source and adjacent to protection areas.
- Note 4: Install Typar® Biobarrier® Root Control Fabric on the side of the trench opposite the root source.
- Note 5: Install Typar® Biobarrier® Root Control Fabric with Nodules facing toward root/weed source.
- Note 6: Fixing pins should penetrate fabric between the nodules 1/4 in. from top edge of fabric and at a 45° angle to the trench wall.

Specific advice on the use of Biobarrier® can be obtained from Polymer Group Inc.

Table 1 : Biobarrier® Specifications

| Description | Data | |
|--|----------------------------------|---------|
| Product | Biobarrier® Root Control System | |
| Chemical Family | Thermoplastic Polyolefin | |
| Composition | Polypropylene | > 74.8% |
| | UV Stabilizer | < 5% |
| | Trifluralin | < 20% |
| | Pigment Masterbatch ¹ | < 0.5% |
| Appearance | Gray Fabric | |
| Physical State | Solid | |
| Vapor Pressure² | 13.7 mPa @ 25°C | |
| Boiling Point | Not Applicable | |
| Solubility (H₂O)² | 0.2 ppm @ 25°C | |
| Vapor Density | Not Applicable | |
| Packing Density | Not Applicable | |
| Odor | Aromatic (Solvent) | |
| pH | Not Applicable | |
| Evaporation Rate | Not Applicable | |
| Melting Point² | > 48.5°C | |
| Specific Gravity | 0.88-0.99 | |
| Percent Volatiles | Nil | |
| UV resistance | High | |
| Corrosivity | None | |
| Flammability | Non-Flammable | |
| Toxicity | IV | |
| Hygroscopicity | None | |
| Explosivity | None | |
| Fabric | | |
| Unit Weight | 4.0 | |
| Tensile Strength (lbs.) | 45.0 | |
| Elongation at Break (%) | > 70.0 | |
| Mullen Burst Strength (psi) | 175.0 | |
| Puncture Strength (lbs.) | 50.0 | |
| Coefficient of Permeability (cm/sec.) | 3 x 10 ² | |
| Nodule | | |
| Base Diameter (in.) | 7/16 | |
| Height | 1/4 | |
| Weight (oz.) | 0.013 | |
| Spacing (in.) | 1-1/2 | |
| ¹ Contains Carbon Black: < 0.1% | | |
| ² Trifluralin (CAS # 1582-09-8) | | |
| *Additional Information May Be Obtained From Polymer Group Inc. Upon Request | | |

Chart 1: Examples of Intended Biobarrier® Root Control Applications & Roll Widths

| Application | Root Control Widthin. (cm) | | | | | |
|--|-----------------------------|-----------|---------|---------|------------|------------|
| | 12 (30) | 19.5 (50) | 24 (61) | 29 (74) | 39 (99) | 58.5 (149) |
| Building Foundations | | | | | X | X |
| Burial Vaults/Tombstones | | | | | | X |
| Containers | | | X | X | X | X |
| Curbs | | X | X | X | X | X |
| Drain Lines | X | X | X | X | X | X |
| Earthdams | | | | | | X |
| Golf Greens/Tees/Cart Paths | | X | X | X | X | X |
| Landfills | | | | | | X |
| Medians | | | X | X | X | X |
| Paths | X | X | X | X | X | X |
| Planting Beds | | X | X | X | X | X |
| Pot 'N' Pot | | | | | | |
| Pots | X | X | | | | |
| Retaining Walls | | | | X | X | X |
| Roads | | X | X | X | X | X |
| Roof Gardens | | | | | X | X |
| Septic Tanks/Fields | | | | | | X |
| Sidewalks | | X | X | X | X | X |
| Swimming Pools | | X | X | X | X | X |
| Tennis Courts | | X | X | X | X | X |
| Underground Pipes/Cables | X | X | X | X | X | X |
| Underground Storage Tanks | | | | | | X |
| Utility Substations | | X | X | X | X | X |
| Biobarrier® Root Control is available in 20 ft. (6.1 m) or 100 ft. (30.5m) Roll Lengths | | | | | | |
| Application | Weed Control Width in. (cm) | | | | | |
| | | | 29 (74) | 39 (99) | 58.5 (149) | |
| Fence Rows | | | X | X | X | |
| Guardrails | | | X | X | X | |
| Landscaping | | | X | X | X | |
| Pavers | | | X | X | X | |
| Street Medians | | | X | X | X | |
| Tombstones | | | X | X | X | |
| Tree Skirts | | | | | X | |
| Utility Substations | | | | | X | |
| Biobarrier® Weed Control is available in 50 ft. (15.3 m) or 100 ft. (30.5m) Roll Lengths in both 39 & 58.5 in. widths and 300 ft. lengths for 29 in. | | | | | | |

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BioBarrier® Root Control Fabric
Surface Protection Applications
Specification, Design & Installation Guide