

Material Specifications

Product: Bioretention Soil Mix BASMAA

SKU: BLND-SOL-BIOSWL-552



Bioretention Soil Mix is an engineered soil media designed to meet regional stormwater management and Low Impact Development (LID) requirements. Formulated in accordance with widely recognized guidelines such as BASMAA (Bay Area Stormwater Management Agencies Association), this mix ensures optimal infiltration, pollutant removal, and support for healthy vegetation.

Typical Composition (By Volume)

Component	Percentage	Description
Clean Washed Sand	60% – 70%	ASTM C33 compliant fine aggregate that promotes drainage and structural stability.
Organic Compost	30% – 40%	STA-certified green waste compost that enhances nutrient content, moisture retention, and microbial activity.

Hydraulic Performance

Property	Specification
Long-Term Infiltration Rate	≥ 5 inches per hour
Permeability Testing	ASTM D2434 (Constant Head)
Compaction Standard	85% – 90% of maximum dry density (ASTM D1557)

Compost Quality Requirements

To ensure consistent performance and plant health, the compost component typically meets the following standards:

Parameter	Typical Range
Organic Matter Content	35% – 75% (dry weight)
Carbon to Nitrogen Ratio (C:N)	15:1 – 25:1
pH	6.5 – 8.0
Salinity (EC)	< 6.0 mmhos/cm
Stability/Maturity	STA Certified (US Composting Council)
Inert Materials (glass, plastic, etc.)	< 1% by weight
Feedstock	Derived from yard trimmings and plant-based materials (no manure or biosolids)

Sand Gradation (ASTM C33 Equivalent)

Sieve Size	Percent Passing
3/8 inch	100%
No. 4	90% – 100%
No. 8	70% – 100%
No. 16	40% – 95%
No. 30	15% – 70%
No. 40/50	5% – 55%
No. 100	0% – 15%
No. 200	0% – 5%

Physical Properties

Property	Typical Value
Bulk Density	500 – 1,100 lbs per cubic yard
Moisture Content	30% – 55% (of dry solids)
Fines Passing No. 200 Sieve (Overall Mix)	Approximately 2% – 5%
Color	Dark brown to black
Texture	Loose, well-draining, and friable

Compliance & Standards

BASMAA Regional Biotreatment Soil Specification

Municipal Regional Stormwater Permit (MRP) Guidelines

ASTM C33 – Standard Specification for Concrete Aggregates (sand component)

ASTM D2434 – Permeability Testing

ASTM D1557 – Compaction Testing

ASTM D422 / CTM 202 – Particle Size Analysis

US Composting Council (USCC) – STA Program

Disclaimer: All listed data/testing results is provided by the material producer or 3rd party laboratory. Bay Area Landscape Supply does not perform or offer in-house material testing. All materials are natural blend, meaning they are machine processed not machine made. Bay Area Landscape Supply does not guarantee specific nutrient analysis or exact composition percentages. It is the responsibility of the installer to ensure product suitability for intended application.

Material Limitations and Liability: Please note that due to natural shifting and separation that can happen during transportation, material or aggregate gradations are only guaranteed at the producer’s facility—not at the jobsite. Bay Area Landscape Supply and its suppliers make no claims or guarantees that this material will meet specific project requirements, specifications, or design standards. It is the buyer’s responsibility to confirm suitability and obtain any necessary approvals or certifications prior to use. All materials are provided as is, with no warranties—express or implied—including but not limited to warranties of merchantability or fitness for a particular purpose. We do not guarantee how the material will perform once installed or in any finished work. By purchasing, the buyer agrees that Bay Area Landscape Supply and its suppliers are not liable

for any damages—including indirect, incidental, special, or consequential losses such as lost profits—whether based on warranty, contract, negligence, or any other legal theory, even if those damages were foreseeable.



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