

Anaheim Office November 5, 2024 Report 24-299-0015

Zanker Landscape Materials 675 Los Esteros Road San Jose Ca 95134

Attn: Marin

### **RE: Dark Brown Mini Mulch**

The product submitted is from recycled wood that has not been fully composted. Visually, this material has a nice dark brown color and is free of contaminants.

100% of the material passes through a 1 inch screen and approximately 1.3% is retained in the 1/2'' screen. Of the material passing the 1/2-inch screen 88.6% of the amendment passes the 6.4 mm (1/4 inch) screen and 28.9% passes the 2.36 mm (about 1/8 inch). The particle size distribution is favorable for an incorporated amendment and is a little finer than average for a surface mulch.

The product is comprised of 80.1% organic matter by weight with 193 lbs. of organic matter per cubic yard.

The product is slightly acid with pH 6.8. Soluble salts are favorably low. Potassium, calcium, and sulfate are moderately supplied. Nitrogen is supplied primarily in the ammonium form. Boron is safely low yet nutritionally adequate.

The carbon to nitrogen ratio is higher than a well composted material but should pose no risk if nitrogen is supplemented accordingly. If this material is incorporated into the soil, there will be potential for shrinkage. A slow release form of nitrogen may be needed to mitigate any nitrogen draw as ammonium is converted. The carbon nitrogen ratio and shrinkage can be reduced by composting.

If no composting is anticipated, then the best use is as a surface mulch. The current grind has a nice appearance but it is a little finer than ideal if the goal is to reduce surface water evaporation and to suppress weed germination.

Finer material passing through a 1/4" (6.4mm) screen can be and marketed as a turf topper that contains nitrogen and would be expected to provide moderate water holding capacity along with a good initial boost of fertility.

If we can be of any further assistance, please feel free to contact us.

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# COMPOST / AMENDMENT EVALUATION

Send To :	Project :	Report Number :	24-299-0015
Greenwaste-Zanker Landscape	Dark Brown Mini Mulch	Customer Number	r: 01002
Materials		Date printed :	10/31/2024
675 Los Esteros Road		Date received :	10/25/2024
San Jose CA 95134		Page :	1 of 2
		Lab Number :	71088

# Sample Id : Dark Brown Mini Mulch

Nutrient	Total - Dry Weight	Extractable - Dry Weight	Saturation Extract	Sufficiency Factor
Nitrogen (N)	0.54 %	298 ppm		0.5
NH <sub>4</sub> -N		284 ppm		
NO <sub>3</sub> -N		14 ppm		
Phosphorus (P)		87 ppm		0.3
Phosphorus (P <sub>2</sub> O <sub>5</sub> )		199 ppm		
Potassium (K)		302 ppm	1.6 meq/L	0.4
Potassium (K <sub>2</sub> O)		365 ppm		
Calcium (Ca)		1155 ppm	2.0 meq/L	0.6
Magnesium (Mg)		147 ppm	0.7 meq/L	0.4
Sodium (Na)			5.0 meq/L	
Sulfur (S)				
Sulfate (SO <sub>4</sub> )			5.4 meq/L	1.8
Chloride (Cl)				
Copper (Cu)		1.7 ppm		1.7
Zinc (Zn)		9 ppm		2.2
Manganese (Mn)		16 ppm		1.8
Iron (Fe)		284 ppm		7.3
Dilute Acid Fe		0.06 %		
Boron (B)			0.59 ppm	2.0

Test	Result		
pH (sat paste)	6.8 s.u.		
% Half Sat.	273		
TEC	79 meq/kg		
Qualitative Lime	None		
Salinity (EC of sat ext.)	1.2 dS/m		
SAR (Sodium adsorption ratio)	4.26		
Sodium as % of ECe	37 %		
Bulk Density - Dry	241 lbs/yd <sup>3</sup>		
Bulk Density - As Received	421 lbs/yd <sup>3</sup>		
Moisture - As Received 42.7 %			
Organic	80.1 %		
Weight of organic / yd3	193 lbs/yd³		
Weight of mineral / yd <sup>3</sup> 48 lbs/yd			
C/N Ratio	88.8		

Gradation		
Wt Percent Retained 1"	0.0	%
Wt Percent Retained 1/2"	1.3	%
Fraction Passing 1/2 inch Screen	- Dry Weight Ba	asis
Screen Opening	% Pa	ssing
Passing 9.5mm	99.2	%
Passing 6.4mm (1/4")	88.6	%
Passing 4.75mm	70.3	%
Passing 2.36mm	28.9	%
Passing 1.00mm	7.6	%
Passing 0.50mm	3.3	%



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#### POTENTIAL RATE LIMIT FACTORS

		Cubic yard amendment per 1000 sf to 6"							
		1	2	3	4	5	6	7	8
Test	% Volume rate limit		Volu	ume % amen	ndment blend	d with sand	y loam		
		5	11	16	22	27	32	38	43
EC sat. ext.	No Limit								
Sodium sol.	No Limit								
Chloride sol.									
Boron sol.	No Limit								
NH <sub>4</sub> -N	No Limit								
Available									
Nitrogen	No Limit								
PO4P	No Limit								
Copper	No Limit								
Zinc	No Limit								

Rate limit estimates based on amending a non-problematic sandy loam

#### RELATIVE IMMEDIATE NUTRIENT AND ORGANIC VALUE

* Example Rate 43 %	Slight	Moderate	Abundant
Nitrogen			
Phosphorus			
Potassium			
Calcium			
Magnesium			
Copper			
Zinc		·	
Manganese			
Iron		·	
Sulfate			
Organic Matter		· · ·	

\* If no chemical characteristics are rate limiting, the example rate is based on organic content of the amendment (up to a max of 43%).