



**Physical and Hydraulic Properties of Rootzone Inorganic Amendments
for Turf Putting Green**



Leonard Githinji, Jacob Dane and Robert Walker,
Auburn University, Agronomy and Soils Department, 285 Funchess Hall, Auburn, AL 36849-5412

Table 2. Particle size distribution, geometric mean diameter, particle density and bulk density of the amendments and sand

Amendment	Particle-size fractions, mm						GMD	ps	pb
	VCS† 1.0-2.0	CS‡ 0.5 -1.0	MS# 0.25-0.50	FS¶ 0.10-0.25	VFS± 0.05-0.10	Silt + clay < 0.05			
	% by weight						mm	— gcm ⁻³ —	
Axis	26.4	52.2	19.9	1.5	0.0	0.0	0.51	2.20	0.47
Clinolite	22.3	69.7	6.6	1.4	0.0	0.0	0.55	2.29	0.97
Ecolite	38.1	52.1	9.1	0.7	0.0	0.0	0.60	2.30	0.95
Isolite	88.0	11.8	0.2	0.0	0.0	0.0	0.92	2.18	0.64
Moltan Plus	1.2	91.7	6.2	0.9	0.0	0.0	0.47	2.25	0.71
Profile	0.0	88.0	12.0	0.0	0.0	0.0	0.46	2.44	0.66
Pros' Choice	0.0	92.9	7.0	0.1	0.0	0.0	0.48	2.31	0.67
Red Sand	2.0	37.2	48.0	12.7	0.1	0.0	0.31	2.67	1.67

†VCS, very coarse sand; ‡CS, coarse sand; #MS, medium sand; ¶FS, fine sand; ±VFS, very fine sand

The majority of pores are of the size which will support bacteria commonly used in environmental applications. ISOLITE is used as a superior support/filter material in the bioremediation of contaminated air, soil and water. The major application areas are:

1. Vapor Phase Treatment - VOC's in a biofilter for both industrial and site remediation applications.
2. Aqueous Phase Treatment - bioreactor
3. Soil Treatment - soil fracturing, bio-cells.
4. Harbor, Lake, River Treatments - delivery system for microorganisms to treat silt/sludge.

