

Chicora Foundation Gas Displacement Mortar Analysis Data Sheet

Name: Aiken-Rhett House **Sample No.:** 2005-5
Date: 8/19/05 **Origin of Sample:** Pointing mortar, east façade of rear yard wall, stable area

Visual Description of sample (color, texture, hardness, inclusions, etc.):
 Friable, many inclusions, overall white (10YR8/1)

Mortar Analysis

Original weight of powdered sample (in g)	3.90
Weight of filter paper (in g)	2.19
Weight of filter paper + dry fines (in g)	2.34
Weight dry fines (in g)	0.15
Weight of dry sand (in g)	2.28
Gas Displacement (in ml)	193.00
Weight of lime (in g)	0.87
% of sand	58.46
% of fines	3.85
% of lime	22.23
% of acid solubles	15.46

Observations (dissolution of binder, color of liquid, reaction):
 Immediate semi-aggressive reaction, yellowish liquid, reaction continued for several minutes, but less aggressive than initial

Characterization of Sand:

		wt. (gm)	%
Microscopic Examination: Sub-rounded to angular; well sorted; clear and citrine quartz	wt./% finer than		
	4.75mm	0.00	0
	2.36mm	0.00	0
	1.18mm	0.27	11.84211
	600µm	0.90	39.47368
	300µm	0.96	42.10526
	150µm	0.11	4.824561
	75µm	0.03	1.315789
	53µm	0.01	0.438596
	38µm	0.00	0
Total sand weight	2.28		

Munsell Color(s) of Sand: white (10YR8/1) with quartz varying from opaque gray (10YR6/1) to brownish yellow (10YR6/6)

