

Chicora Foundation Gas Displacement Mortar Analysis Data Sheet

Name: Aiken-Rhett House **Sample No.:** 2005-4
Date: 8/19/05 **Origin of Sample:** East elevation, pointing mortar

Visual Description of sample (color, texture, hardness, inclusions, etc.):
 Friable, rough texture, few white and quartz inclusions. Overall color is light yellowish brown (10YR6/4)

Mortar Analysis

Original weight of powdered sample (in g)	4.06
Weight of filter paper (in g)	4.38
Weight of filter paper + dry fines (in g)	4.64
Weight dry fines (in g)	0.26
Weight of dry sand (in g)	3.09
Gas Displacement (in ml)	60.00
Weight of lime (in g)	0.27
% of sand	76.11
% of fines	6.40
% of lime	6.64
% of acid solubles	10.85

Observations (dissolution of binder, color of liquid, reaction):
 Immediate, aggressive reaction, brown liquid, short reaction time

Characterization of Sand:

Microscopic Examination:
 sub-rounded to angular; well sorted; mostly quartz, but also some mica and some dark shiny material (smoky quartz?)

	wt (gm)	%
wt. % finer than		
4.75mm	0.00	0
2.36mm	0.00	0
1.18mm	0.25	8.090615
600µm	0.63	20.38835
300µm	1.49	48.22006
150µm	0.60	19.41748
75µm	0.09	2.912621
53µm	0.03	0.970874
38µm	0.00	0
Total sand weight	3.09	

Munsell Color(s) of Sand: very pale brown, 10YR7/4)

