CEMENT SAMPLE WORKSHEET

North Dakota Department of Transportation, Materials & Research
SFN 9994 (9-2017)

To be Filled in by Field Personnel	
Project Number	PCN
District	Engineer
Contractor	Submitted By
Date Sampled	Sample From
Brand & Type	
Amount Represented	Field Sample Number

For Materials & Research Central Lab Use Only		
Laboratory Number	Date Received	
No. .325 Sieve		AASHTO T-192 Tested By:
Normal Consistency	%	AASHTO T-129 Tested By:
Fineness, Blaine Fineness Meter Specific Surface,	m^2/kg	AASHTO T-153 Tested By:
Soundness, Autoclave Expansion	%	AASHTO T-107 Tested By:
Air Content of Mortar	%	AASHTO T-137 Tested By:
Time of Setting-Gillmore Test		AASHTO T-154 Tested By:
Initial Set	hr.	min.
Final Set	hr.	min.
Time of Setting-ViCat Needle Test		ASTM C-191 AASHTO T-131 Tested By
Initial Set	min.	min.
Final Set	min.	min.
Compressive Strength - 50mm Cubes		AASHTO T-106 Tested By:
3-Day Break		PSI
7-Day Break		PSI
28-Day Break		PSI
Conformity to Specifications		
Remarks		
Testing Lab Supervisor		Date Report

☐ _____ District
☐ Central Lab

Lab No. CE-	Date

NORMAL CONSISTENCY, TIME OF SET, AUTOCLAVE BAR

N.C. = %

START TIME	INITIAL SET TIME	FINAL SET TIME	INITIAL LENGTH	FINAL LENGTH	DIFFERENCE	% EXPANSION
: AM	: AM	: AM	10. "	10. "	0. "	0. %

AIR CONTENT: $100 - 2.5W \frac{(182.7 + P)}{(5000 + 10P)}$ = % air

P = % Water
W=Wt of Mortar

$P = \frac{\text{ml of water}}{\text{grams of cement}} \times 100 =$ _____ x100 = _____% Water
350

_____ % Flow Obtained

W = Wt of measure & mortar - Wt of measure = Wt of mortar

W = _____ -638.2 = _____ grams of mortar

2.5 x grams of mortar x factor from chart
2.5 (_____ x0.0 _____)

= 100 - _____ = _____ % Air Content

AIR PERMEABILITY: Specific Surface Cell #2

Time = _____ seconds

$Ss = \frac{3818 \times}{\_\_\_\_}$

_____ = _____ cm^2 / gram or _____ m^2kg
9.42

AIR PERMEABILITY: Specific Surface Cell #1

Time = _____ seconds

$Ss = \frac{3818 \times}{\_\_\_\_}$

_____ = _____ cm^2 / gram or _____ m^2kg
9.22

T - 192 .325 Screen #_____ Correction Factor _____ %

Residue X(100+CF) = Corrected Residue or % retained on screen
100 - CR = % Passing

_____ X _____ = _____ CR or % retained on screen

100 - _____ = _____ % Passing

Correction factor Screen #1 6.78% Screen #2 4.68% Screen #3 3.97%