

3-2 Laboratory Test Result of Additive Mixed Soil

Laboratory Test Result of Additive Mixed Soil

Soil Specimen Name	Original Sample No.	Original Sample Evaluation	Additive	Date	Starting Time	Evaluation			
						Nil	Slight	Moderate	Severe
Slight - 1 - C1	2-1	Slight	Cement 1%	Feb. 15, 2012	9:00		✓		
Slight - 1 - C3	2-1	Slight	Cement 3%	Feb. 15, 2012	9:00	✓			
Slight - 1 - C5	2-1	Slight	Cement 5%	Feb. 15, 2012	9:00	✓			
Slight - 1 - C7	2-1	Slight	Cement 7%	Feb. 15, 2012	9:00	✓			
Slight - 1 - L1	2-1	Slight	Lime 1%	Feb. 15, 2012	9:00	✓			
Slight - 1 - L3	2-1	Slight	Lime 3%	Feb. 15, 2012	9:00	✓			
Slight - 1 - L5	2-1	Slight	Lime 5%	Feb. 15, 2012	9:00	✓			
Slight - 1 - L7	2-1	Slight	Lime 7%	Feb. 15, 2012	9:00	✓			
Slight - 1 - G1	2-1	Slight	Gypsum 1%	Feb. 15, 2012	13:00	✓			
Slight - 1 - G3	2-1	Slight	Gypsum 3%	Feb. 15, 2012	13:00	✓			
Slight - 1 - G5	2-1	Slight	Gypsum 5%	Feb. 15, 2012	13:00	✓			
Slight - 1 - G7	2-1	Slight	Gypsum 7%	Feb. 15, 2012	13:00	✓			
Slight - 1 - F1	2-1	Slight	Fly ash 1%	Feb. 15, 2012	13:00				✓
Slight - 1 - F3	2-1	Slight	Fly ash 3%	Feb. 15, 2012	13:00				✓
Slight - 1 - F5	2-1	Slight	Fly ash 5%	Feb. 15, 2012	13:00				✓
Slight - 1 - F7	2-1	Slight	Fly ash 7%	Feb. 15, 2012	13:00				✓
Slight - 2 - C1	12-3	Slight	Cement 1%	Feb. 15, 2012	9:00	✓			
Slight - 2 - C3	12-3	Slight	Cement 3%	Feb. 15, 2012	9:00	✓			
Slight - 2 - C5	12-3	Slight	Cement 5%	Feb. 15, 2012	9:00	✓			
Slight - 2 - C7	12-3	Slight	Cement 7%	Feb. 15, 2012	9:00	✓			
Slight - 2 - L1	12-3	Slight	Lime 1%	Feb. 15, 2012	9:00	✓			
Slight - 2 - L3	12-3	Slight	Lime 3%	Feb. 15, 2012	9:00	✓			
Slight - 2 - L5	12-3	Slight	Lime 5%	Feb. 15, 2012	9:00	✓			
Slight - 2 - L7	12-3	Slight	Lime 7%	Feb. 15, 2012	9:00	✓			
Slight - 2 - G1	12-3	Slight	Gypsum 1%	Feb. 15, 2012	13:00	✓			
Slight - 2 - G3	12-3	Slight	Gypsum 3%	Feb. 15, 2012	13:00	✓			
Slight - 2 - G5	12-3	Slight	Gypsum 5%	Feb. 15, 2012	13:00	✓			
Slight - 2 - G7	12-3	Slight	Gypsum 7%	Feb. 15, 2012	13:00	✓			
Slight - 2 - F1	12-3	Slight	Fly ash 1%	Feb. 15, 2012	13:00			✓	
Slight - 2 - F3	12-3	Slight	Fly ash 3%	Feb. 15, 2012	13:00			✓	
Slight - 2 - F5	12-3	Slight	Fly ash 5%	Feb. 15, 2012	13:00		✓		
Slight - 2 - F7	12-3	Slight	Fly ash 7%	Feb. 15, 2012	13:00		✓		
Moderate - 1 - C1	6-3	Moderate	Cement 1%	Feb. 15, 2012	9:00	✓			
Moderate - 1 - C3	6-3	Moderate	Cement 3%	Feb. 15, 2012	9:00	✓			
Moderate - 1 - C5	6-3	Moderate	Cement 5%	Feb. 15, 2012	9:00	✓			
Moderate - 1 - C7	6-3	Moderate	Cement 7%	Feb. 15, 2012	9:00	✓			
Moderate - 1 - L1	6-3	Moderate	Lime 1%	Feb. 15, 2012	9:00	✓			
Moderate - 1 - L3	6-3	Moderate	Lime 3%	Feb. 15, 2012	9:00	✓			
Moderate - 1 - L5	6-3	Moderate	Lime 5%	Feb. 15, 2012	9:00	✓			
Moderate - 1 - L7	6-3	Moderate	Lime 7%	Feb. 15, 2012	9:00	✓			
Moderate - 1 - G1	6-3	Moderate	Gypsum 1%	Feb. 15, 2012	13:00	✓			

Soil Specimen Name	Original Sample No.	Original Sample Evaluation	Additive	Date	Starting Time	Evaluation			
						Nil	Slight	Moderate	Severe
Moderate - 1 - G3	6-3	Moderate	Gypsum 3%	Feb. 15, 2012	13:00	✓			
Moderate - 1 - G5	6-3	Moderate	Gypsum 5%	Feb. 15, 2012	13:00	✓			
Moderate - 1 - G7	6-3	Moderate	Gypsum 7%	Feb. 15, 2012	13:00	✓			
Moderate - 1 - F1	6-3	Moderate	Fly ash 1%	Feb. 15, 2012	13:00	✓			
Moderate - 1 - F3	6-3	Moderate	Fly ash 3%	Feb. 15, 2012	13:00	✓			
Moderate - 1 - F5	6-3	Moderate	Fly ash 5%	Feb. 15, 2012	13:00	✓			
Moderate - 1 - F7	6-3	Moderate	Fly ash 7%	Feb. 15, 2012	13:00	✓			
Moderate - 2 - C1	11-3	Moderate	Cement 1%	Feb. 15, 2012	9:00	✓			
Moderate - 2 - C3	11-3	Moderate	Cement 3%	Feb. 15, 2012	9:00	✓			
Moderate - 2 - C5	11-3	Moderate	Cement 5%	Feb. 15, 2012	9:00	✓			
Moderate - 2 - C7	11-3	Moderate	Cement 7%	Feb. 15, 2012	9:00	✓			
Moderate - 2 - L1	11-3	Moderate	Lime 1%	Feb. 15, 2012	9:00	✓			
Moderate - 2 - L3	11-3	Moderate	Lime 3%	Feb. 15, 2012	9:00	✓			
Moderate - 2 - L5	11-3	Moderate	Lime 5%	Feb. 15, 2012	9:00	✓			
Moderate - 2 - L7	11-3	Moderate	Lime 7%	Feb. 15, 2012	9:00	✓			
Moderate - 2 - G1	11-3	Moderate	Gypsum 1%	Feb. 15, 2012	13:00	✓			
Moderate - 2 - G3	11-3	Moderate	Gypsum 3%	Feb. 15, 2012	13:00	✓			
Moderate - 2 - G5	11-3	Moderate	Gypsum 5%	Feb. 15, 2012	13:00	✓			
Moderate - 2 - G7	11-3	Moderate	Gypsum 7%	Feb. 15, 2012	13:00	✓			
Moderate - 2 - F1	11-3	Moderate	Fly ash 1%	Feb. 15, 2012	13:00				✓
Moderate - 2 - F3	11-3	Moderate	Fly ash 3%	Feb. 15, 2012	13:00				✓
Moderate - 2 - F5	11-3	Moderate	Fly ash 5%	Feb. 15, 2012	13:00			✓	
Moderate - 2 - F7	11-3	Moderate	Fly ash 7%	Feb. 15, 2012	13:00		✓		
Severe - 1 - C1	1-1	Severe	Cement 1%	Feb. 15, 2012	9:00		✓		
Severe - 1 - C3	1-1	Severe	Cement 3%	Feb. 15, 2012	9:00	✓			
Severe - 1 - C5	1-1	Severe	Cement 5%	Feb. 15, 2012	9:00	✓			
Severe - 1 - C7	1-1	Severe	Cement 7%	Feb. 15, 2012	9:00	✓			
Severe - 1 - L1	1-1	Severe	Lime 1%	Feb. 15, 2012	9:00		✓		
Severe - 1 - L3	1-1	Severe	Lime 3%	Feb. 15, 2012	9:00	✓			
Severe - 1 - L5	1-1	Severe	Lime 5%	Feb. 15, 2012	9:00	✓			
Severe - 1 - L7	1-1	Severe	Lime 7%	Feb. 15, 2012	9:00	✓			
Severe - 1 - G1	1-1	Severe	Gypsum 1%	Feb. 15, 2012	13:00	✓			
Severe - 1 - G3	1-1	Severe	Gypsum 3%	Feb. 15, 2012	13:00	✓			
Severe - 1 - G5	1-1	Severe	Gypsum 5%	Feb. 15, 2012	13:00	✓			
Severe - 1 - G7	1-1	Severe	Gypsum 7%	Feb. 15, 2012	13:00	✓			
Severe - 1 - F1	1-1	Severe	Fly ash 1%	Feb. 15, 2012	13:00				✓
Severe - 1 - F3	1-1	Severe	Fly ash 3%	Feb. 15, 2012	13:00				✓
Severe - 1 - F5	1-1	Severe	Fly ash 5%	Feb. 15, 2012	13:00				✓
Severe - 1 - F7	1-1	Severe	Fly ash 7%	Feb. 15, 2012	13:00				✓
Severe - 2 - C1	13-1	Severe	Cement 1%	Feb. 15, 2012	9:00		✓		
Severe - 2 - C3	13-1	Severe	Cement 3%	Feb. 15, 2012	9:00	✓			

Soil Specimen Name	Original Sample No.	Original Sample Evaluation	Additive	Date	Starting Time	Evaluation			
						Nil	Slight	Moderate	Severe
Severe - 2 - C5	13-1	Severe	Cement 5%	Feb. 15, 2012	9:00	✓			
Severe - 2 - C7	13-1	Severe	Cement 7%	Feb. 15, 2012	9:00	✓			
Severe - 2 - L1	13-1	Severe	Lime 1%	Feb. 15, 2012	9:00	✓			
Severe - 2 - L3	13-1	Severe	Lime 3%	Feb. 15, 2012	9:00	✓			
Severe - 2 - L5	13-1	Severe	Lime 5%	Feb. 15, 2012	9:00	✓			
Severe - 2 - L7	13-1	Severe	Lime 7%	Feb. 15, 2012	9:00	✓			
Severe - 2 - G1	13-1	Severe	Gypsum 1%	Feb. 15, 2012	13:00	✓			
Severe - 2 - G3	13-1	Severe	Gypsum 3%	Feb. 15, 2012	13:00	✓			
Severe - 2 - G5	13-1	Severe	Gypsum 5%	Feb. 15, 2012	13:00	✓			
Severe - 2 - G7	13-1	Severe	Gypsum 7%	Feb. 15, 2012	13:00	✓			
Severe - 2 - F1	13-1	Severe	Fly ash 1%	Feb. 15, 2012	13:00				✓
Severe - 2 - F3	13-1	Severe	Fly ash 3%	Feb. 15, 2012	13:00				✓
Severe - 2 - F5	13-1	Severe	Fly ash 5%	Feb. 15, 2012	13:00				✓
Severe - 2 - F7	13-1	Severe	Fly ash 7%	Feb. 15, 2012	13:00				✓
Total Number						72	7	3	14

Simple Dispersive Soil Test for Soil mixed with additive

<p>Sample No. <u>Slight-1-C1</u> Original Sample No. <u>2-1</u> evaluated as <u>Slight</u></p> <p>Additive: <u>Cement 1 %</u></p> <p>Date: Feb. 15, 2012 Starting Time: 9:00</p>	0 min.	10 min.	20 min.	30 min.
	40 min.	50 min.	60 min.	70 min.
	80 min.		<p>Evaluation</p> <p><input type="checkbox"/> : Nil</p> <p><input checked="" type="checkbox"/> : Slight</p> <p><input type="checkbox"/> : Moderate</p> <p><input type="checkbox"/> : Severe</p>	
90 min.	100 min.	110 min.		

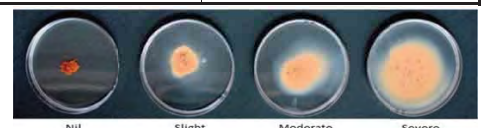
Evaluation Criteria :















Simple Dispersive Soil Test for Soil mixed with additive

<p>Sample No. <u>Slight-1-C3</u> Original Sample No. <u>2-1</u> evaluated as <u>Slight</u></p> <p>Additive: <u>Cement 3 %</u></p> <p>Date: Feb. 15, 2012 Starting Time: 9:00</p>	0 min.	10 min.	20 min.	30 min.
	40 min.	50 min.	60 min.	70 min.
	80 min.		<p>Evaluation</p> <p><input checked="" type="checkbox"/> : Nil</p> <p><input type="checkbox"/> : Slight</p> <p><input type="checkbox"/> : Moderate</p> <p><input type="checkbox"/> : Severe</p>	
90 min.	100 min.	110 min.		

Evaluation Criteria :















Simple Dispersive Soil Test for Soil mixed with additive

<p>Sample No. <u>Slight-1-C5</u> Original Sample No. <u>2-1</u> evaluated as <u>Slight</u></p> <p>Additive: <u>Cement 5 %</u></p> <p>Date: Feb. 15, 2012 Starting Time: 9:00</p>	0 min.	10 min.	20 min.	30 min.
				
	40 min.	50 min.	60 min.	70 min.
				
	90 min.	100 min.	110 min.	120 min.
				
				<p>Evaluation</p> <p>■ : Nil □ : Slight □ : Moderate □ : Severe</p>

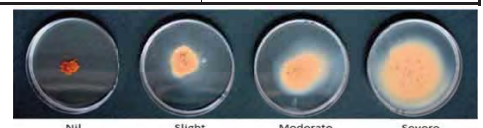
Evaluation Criteria :















Simple Dispersive Soil Test for Soil mixed with additive

<p>Sample No. <u>Slight-1-C7</u> Original Sample No. <u>2-1</u> evaluated as <u>Slight</u></p> <p>Additive: <u>Cement 7 %</u></p> <p>Date: Feb. 15, 2012 Starting Time: 9:00</p>	0 min.	10 min.	20 min.	30 min.
				
	40 min.	50 min.	60 min.	70 min.
				
	90 min.	100 min.	110 min.	120 min.
				
				<p>Evaluation</p> <p>■ : Nil □ : Slight □ : Moderate □ : Severe</p>

Evaluation Criteria :











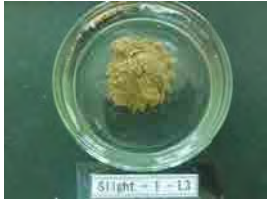



Simple Dispersive Soil Test for Soil mixed with additive

<p>Sample No. <u>Slight-1-L1</u> Original Sample No. <u>2-1</u> evaluated as <u>Slight</u></p> <p>Additive: <u>Lime 1%</u></p> <p>Date: Feb. 15, 2012 Starting Time: 9:00</p>	0 min.	10 min.	20 min.	30 min.
				
	40 min.	50 min.	60 min.	70 min.
				
	90 min.	100 min.	110 min.	120 min.
				
				<p>Evaluation</p> <p>■ : Nil □ : Slight □ : Moderate □ : Severe</p>

Evaluation Criteria :















Simple Dispersive Soil Test for Soil mixed with additive

<p>Sample No. <u>Slight-1-L3</u> Original Sample No. <u>2-1</u> evaluated as <u>Slight</u></p> <p>Additive: <u>Lime 3%</u></p> <p>Date: Feb. 15, 2012 Starting Time: 9:00</p>	0 min.	10 min.	20 min.	30 min.
				
	40 min.	50 min.	60 min.	70 min.
				
	90 min.	100 min.	110 min.	120 min.
				
				<p>Evaluation</p> <p>■ : Nil □ : Slight □ : Moderate □ : Severe</p>

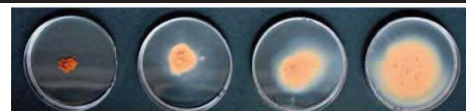
Evaluation Criteria :















Simple Dispersive Soil Test for Soil mixed with additive

<p>Sample No. <u>Slight-1-L5</u> Original Sample No. <u>2-1</u> evaluated as <u>Slight</u></p> <p>Additive: <u>Lime 5%</u></p> <p>Date: Feb. 15, 2012 Starting Time: 9:00</p>	0 min.	10 min.	20 min.	30 min.
				
	40 min.	50 min.	60 min.	70 min.
				
	90 min.	100 min.	110 min.	120 min.
				
				<p>Evaluation</p> <p>■ : Nil □ : Slight □ : Moderate □ : Severe</p>

Evaluation Criteria :
















Simple Dispersive Soil Test for Soil mixed with additive

<p>Sample No. <u>Slight-1-L7</u> Original Sample No. <u>2-1</u> evaluated as <u>Slight</u></p> <p>Additive: <u>Lime 7%</u></p> <p>Date: Feb. 15, 2012 Starting Time: 9:00</p>	0 min.	10 min.	20 min.	30 min.
				
	40 min.	50 min.	60 min.	70 min.
				
	90 min.	100 min.	110 min.	120 min.
				
				<p>Evaluation</p> <p>■ : Nil □ : Slight □ : Moderate □ : Severe</p>

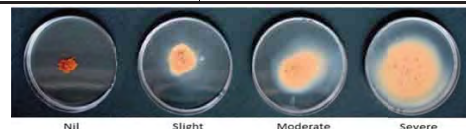
Evaluation Criteria :
















Simple Dispersive Soil Test for Soil mixed with additive

<p>Sample No. <u>Slight-1-G1</u> Original Sample No. <u>2-1</u> evaluated as <u>Slight</u></p> <p>Additive: <u>Gypsum 1%</u></p> <p>Date: Feb. 15, 2012 Starting Time: 13:00</p>	0 min.	10 min.	20 min.	30 min.	
					
	40 min.	50 min.	60 min.	70 min.	80 min.
					
	90 min.	100 min.	110 min.	120 min.	<p>Evaluation</p> <p>■ : Nil □ : Slight □ : Moderate □ : Severe</p>
					

Evaluation Criteria :




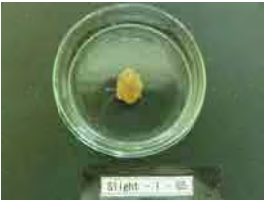










Simple Dispersive Soil Test for Soil mixed with additive

<p>Sample No. <u>Slight-1-G3</u> Original Sample No. <u>2-1</u> evaluated as <u>Slight</u></p> <p>Additive: <u>Gypsum 3%</u></p> <p>Date: Feb. 15, 2012 Starting Time: 13:00</p>	0 min.	10 min.	20 min.	30 min.	
					
	40 min.	50 min.	60 min.	70 min.	80 min.
					
	90 min.	100 min.	110 min.	120 min.	<p>Evaluation</p> <p>■ : Nil □ : Slight □ : Moderate □ : Severe</p>
					

Evaluation Criteria :







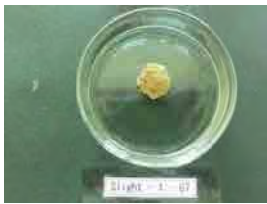








Simple Dispersive Soil Test for Soil mixed with additive

Sample No. <u>Slight-1-G5</u> Original Sample No. <u>2-1</u> evaluated as <u>Slight</u> Additive: <u>Gypsum 5%</u> Date: Feb. 15, 2012 Starting Time: 13:00	0 min.	10 min.	20 min.	30 min.
				
	40 min.	50 min.	60 min.	70 min.
				
	90 min.	100 min.	110 min.	120 min.
				
				Evaluation ■: Nil □: Slight □: Moderate □: Severe

Evaluation Criteria :



Simple Dispersive Soil Test for Soil mixed with additive

Sample No. <u>Slight-1-G7</u> Original Sample No. <u>2-1</u> evaluated as <u>Slight</u> Additive: <u>Gypsum 7%</u> Date: Feb. 15, 2012 Starting Time: 13:00	0 min.	10 min.	20 min.	30 min.
				
	40 min.	50 min.	60 min.	70 min.
				
	80 min.	90 min.	100 min.	110 min.
				
120 min.	Evaluation ■: Nil □: Slight □: Moderate □: Severe			
				

Evaluation Criteria :



Simple Dispersive Soil Test for Soil mixed with additive

<p>Sample No. <u>Slight-1-F1</u> Original Sample No. <u>2-1</u> evaluated as <u>Slight</u></p> <p>Additive: <u>Fly ash 1%</u></p> <p>Date: Feb. 15, 2012 Starting Time: 13:00</p>	0 min.	10 min.	20 min.	30 min.	
	40 min.	50 min.	60 min.	70 min.	
	80 min.	90 min.	100 min.	110 min.	
	120 min.	<p>Evaluation</p> <p><input type="checkbox"/> : Nil <input type="checkbox"/> : Slight <input type="checkbox"/> : Moderate <input checked="" type="checkbox"/> : Severe</p>			

Evaluation Criteria :
















Simple Dispersive Soil Test for Soil mixed with additive

<p>Sample No. <u>Slight-1-F3</u> Original Sample No. <u>2-1</u> evaluated as <u>Slight</u></p> <p>Additive: <u>Fly ash 3%</u></p> <p>Date: Feb. 15, 2012 Starting Time: 13:00</p>	0 min.	10 min.	20 min.	30 min.	
	40 min.	50 min.	60 min.	70 min.	
	80 min.	90 min.	100 min.	110 min.	
	120 min.	<p>Evaluation</p> <p><input type="checkbox"/> : Nil <input type="checkbox"/> : Slight <input type="checkbox"/> : Moderate <input checked="" type="checkbox"/> : Severe</p>			

Evaluation Criteria :
















Simple Dispersive Soil Test for Soil mixed with additive

<p>Sample No. <u>Slight-1-F5</u> Original Sample No. <u>2-1</u> evaluated as <u>Slight</u></p> <p>Additive: <u>Fly ash 5%</u></p> <p>Date: Feb. 15, 2012 Starting Time: 13:00</p>	0 min.	10 min.	20 min.	30 min.	
					
	40 min.	50 min.	60 min.	70 min.	80 min.
					
	90 min.	100 min.	110 min.	120 min.	<p>Evaluation</p> <p><input type="checkbox"/> Nil <input type="checkbox"/> Slight <input type="checkbox"/> Moderate <input checked="" type="checkbox"/> Severe</p>
					

Evaluation Criteria :



Simple Dispersive Soil Test for Soil mixed with additive

<p>Sample No. <u>Slight-1-F7</u> Original Sample No. <u>2-1</u> evaluated as <u>Slight</u></p> <p>Additive: <u>Fly ash 7%</u></p> <p>Date: Feb. 15, 2012 Starting Time: 13:00</p>	0 min.	10 min.	20 min.	30 min.	
					
	40 min.	50 min.	60 min.	70 min.	80 min.
					
	90 min.	100 min.	110 min.	120 min.	<p>Evaluation</p> <p><input type="checkbox"/> Nil <input type="checkbox"/> Slight <input type="checkbox"/> Moderate <input checked="" type="checkbox"/> Severe</p>
					

Evaluation Criteria :



Simple Dispersive Soil Test for Soil mixed with additive

<p>Sample No. <u>Slight-2-C1</u> Original Sample No. <u>12-3</u> evaluated as <u>Slight</u></p> <p>Additive: <u>Cement 1%</u></p> <p>Date: Feb. 15, 2012 Starting Time: 9:00</p>	0 min.	10 min.	20 min.	30 min.
	40 min.	50 min.	60 min.	70 min.
	90 min.	100 min.	110 min.	120 min.
				<p>Evaluation</p> <p>■ : Nil □ : Slight □ : Moderate □ : Severe</p>

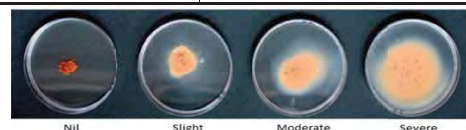
Evaluation Criteria :















Simple Dispersive Soil Test for Soil mixed with additive

<p>Sample No. <u>Slight-2-C3</u> Original Sample No. <u>12-3</u> evaluated as <u>Slight</u></p> <p>Additive: <u>Cement 3%</u></p> <p>Date: Feb. 15, 2012 Starting Time: 9:00</p>	0 min.	10 min.	20 min.	30 min.
	40 min.	50 min.	60 min.	70 min.
	90 min.	100 min.	110 min.	120 min.
				<p>Evaluation</p> <p>■ : Nil □ : Slight □ : Moderate □ : Severe</p>

Evaluation Criteria :















Simple Dispersive Soil Test for Soil mixed with additive

<p>Sample No. <u>Slight-2-C5</u> Original Sample No. <u>12-3</u> evaluated as <u>Slight</u></p> <p>Additive: <u>Cement 5%</u></p> <p>Date: Feb. 15, 2012 Starting Time: 9:00</p>	0 min.	10 min.	20 min.	30 min.
				
	40 min.	50 min.	60 min.	70 min.
				
	90 min.	100 min.	110 min.	120 min.
				
				<p>Evaluation</p> <p>■ : Nil □ : Slight □ : Moderate □ : Severe</p>

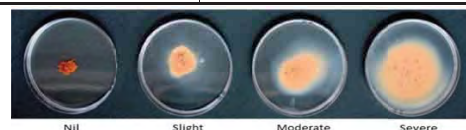
Evaluation Criteria :















Simple Dispersive Soil Test for Soil mixed with additive

<p>Sample No. <u>Slight-2-C7</u> Original Sample No. <u>12-3</u> evaluated as <u>Slight</u></p> <p>Additive: <u>Cement 7%</u></p> <p>Date: Feb. 15, 2012 Starting Time: 9:00</p>	0 min.	10 min.	20 min.	30 min.
				
	40 min.	50 min.	60 min.	70 min.
				
	90 min.	100 min.	110 min.	120 min.
				
				<p>Evaluation</p> <p>■ : Nil □ : Slight □ : Moderate □ : Severe</p>

Evaluation Criteria :















Simple Dispersive Soil Test for Soil mixed with additive

<p>Sample No. <u>Slight-2-L1</u> Original Sample No. <u>12-3</u> evaluated as <u>Slight</u></p> <p>Additive: <u>Lime 1%</u></p> <p>Date: Feb. 15, 2012 Starting Time: 9:00</p>	0 min.	10 min.	20 min.	30 min.
				
	40 min.	50 min.	60 min.	70 min.
				
	90 min.	100 min.	110 min.	120 min.
				
				<p>Evaluation</p> <p>■ : Nil □ : Slight □ : Moderate □ : Severe</p>

Evaluation Criteria :















Simple Dispersive Soil Test for Soil mixed with additive

<p>Sample No. <u>Slight-2-L3</u> Original Sample No. <u>12-3</u> evaluated as <u>Slight</u></p> <p>Additive: <u>Lime 3%</u></p> <p>Date: Feb. 15, 2012 Starting Time: 9:00</p>	0 min.	10 min.	20 min.	30 min.
				
	40 min.	50 min.	60 min.	70 min.
				
	90 min.	100 min.	110 min.	120 min.
				
				<p>Evaluation</p> <p>■ : Nil □ : Slight □ : Moderate □ : Severe</p>

Evaluation Criteria :















Simple Dispersive Soil Test for Soil mixed with additive

<p>Sample No. <u>Slight-2-L5</u> Original Sample No. <u>12-3</u> evaluated as <u>Slight</u></p> <p>Additive: <u>Lime 5%</u></p> <p>Date: Feb. 15, 2012 Starting Time: 9:00</p>	0 min.	10 min.	20 min.	30 min.
				
	40 min.	50 min.	60 min.	70 min.
				
	90 min.	100 min.	110 min.	120 min.
				
				<p>Evaluation</p> <p>■ : Nil □ : Slight □ : Moderate □ : Severe</p>

Evaluation Criteria :















Simple Dispersive Soil Test for Soil mixed with additive

<p>Sample No. <u>Slight-2-L7</u> Original Sample No. <u>12-3</u> evaluated as <u>Slight</u></p> <p>Additive: <u>Lime 7%</u></p> <p>Date: Feb. 15, 2012 Starting Time: 9:00</p>	0 min.	10 min.	20 min.	30 min.
				
	40 min.	50 min.	60 min.	70 min.
				
	90 min.	100 min.	110 min.	120 min.
				
				<p>Evaluation</p> <p>■ : Nil □ : Slight □ : Moderate □ : Severe</p>

Evaluation Criteria :















Simple Dispersive Soil Test for Soil mixed with additive

<p>Sample No. <u>Slight-2-G1</u> Original Sample No. <u>12-3</u> evaluated as <u>Slight</u></p> <p>Additive: <u>Gypsum 1%</u></p> <p>Date: Feb. 15, 2012 Starting Time: 13:00</p>	0 min.	10 min.	20 min.	30 min.
				
	40 min.	50 min.	60 min.	70 min.
				
	90 min.	100 min.	110 min.	120 min.
				
				<p>Evaluation</p> <p>■ : Nil □ : Slight □ : Moderate □ : Severe</p>

Evaluation Criteria :















Simple Dispersive Soil Test for Soil mixed with additive

<p>Sample No. <u>Slight-2-G3</u> Original Sample No. <u>12-3</u> evaluated as <u>Slight</u></p> <p>Additive: <u>Gypsum 3%</u></p> <p>Date: Feb. 15, 2012 Starting Time: 13:00</p>	0 min.	10 min.	20 min.	30 min.
				
	40 min.	50 min.	60 min.	70 min.
				
	90 min.	100 min.	110 min.	120 min.
				
				<p>Evaluation</p> <p>■ : Nil □ : Slight □ : Moderate □ : Severe</p>

Evaluation Criteria :















Simple Dispersive Soil Test for Soil mixed with additive

<p>Sample No. <u>Slight-2-G5</u> Original Sample No. <u>12-3</u> evaluated as <u>Slight</u></p> <p>Additive: <u>Gypsum 5%</u></p> <p>Date: Feb. 15, 2012 Starting Time: 13:00</p>	0 min.	10 min.	20 min.	30 min.
				
	40 min.	50 min.	60 min.	70 min.
				
	90 min.	100 min.	110 min.	120 min.
				
				<p>Evaluation</p> <p>■ : Nil □ : Slight □ : Moderate □ : Severe</p>

Evaluation Criteria :














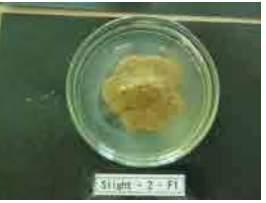

Simple Dispersive Soil Test for Soil mixed with additive

<p>Sample No. <u>Slight-2-G7</u> Original Sample No. <u>12-3</u> evaluated as <u>Slight</u></p> <p>Additive: <u>Gypsum 7%</u></p> <p>Date: Feb. 15, 2012 Starting Time: 13:00</p>	0 min.	10 min.	20 min.	30 min.
				
	40 min.	50 min.	60 min.	70 min.
				
	90 min.	100 min.	110 min.	120 min.
				
				<p>Evaluation</p> <p>■ : Nil □ : Slight □ : Moderate □ : Severe</p>

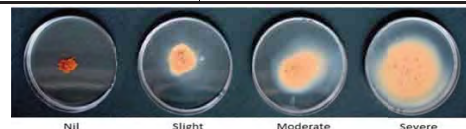
Evaluation Criteria :
















Simple Dispersive Soil Test for Soil mixed with additive

Sample No. <u>Slight-2-F7</u> Original Sample No. <u>12-3</u> evaluated as <u>Slight</u> Additive: <u>Fly ash 1%</u> Date: Feb. 15, 2012 Starting Time: 13:00	0 min.	10 min.	20 min.	30 min.
				
	40 min.	50 min.	60 min.	70 min.
				
	80 min.	90 min.	100 min.	110 min.
				
	120 min.	Evaluation <input type="checkbox"/> Nil <input type="checkbox"/> Slight <input checked="" type="checkbox"/> Moderate <input type="checkbox"/> Severe		
				

Evaluation Criteria :















Simple Dispersive Soil Test for Soil mixed with additive

Sample No. <u>Slight-2-F3</u> Original Sample No. <u>12-3</u> evaluated as <u>Slight</u> Additive: <u>Fly ash 3%</u> Date: Feb. 15, 2012 Starting Time: 13:00	0 min.	10 min.	20 min.	30 min.
				
	40 min.	50 min.	60 min.	70 min.
				
	80 min.	90 min.	100 min.	110 min.
				
	120 min.	Evaluation <input type="checkbox"/> Nil <input type="checkbox"/> Slight <input checked="" type="checkbox"/> Moderate <input type="checkbox"/> Severe		
				

Evaluation Criteria :















Simple Dispersive Soil Test for Soil mixed with additive

<p>Sample No. <u>Slight-2-F5</u> Original Sample No. <u>12-3</u> evaluated as <u>Slight</u></p> <p>Additive: <u>Fly ash 5%</u></p> <p>Date: Feb. 15, 2012 Starting Time: 13:00</p>	0 min.	10 min.	20 min.	30 min.
				
	40 min.	50 min.	60 min.	70 min.
				
	90 min.	100 min.	110 min.	120 min.
				
				<p>Evaluation</p> <p><input type="checkbox"/> : Nil <input checked="" type="checkbox"/> : Slight <input type="checkbox"/> : Moderate <input type="checkbox"/> : Severe</p>

Evaluation Criteria :
















Simple Dispersive Soil Test for Soil mixed with additive

<p>Sample No. <u>Slight-2-F7</u> Original Sample No. <u>12-3</u> evaluated as <u>Slight</u></p> <p>Additive: <u>Fly ash 7%</u></p> <p>Date: Feb. 15, 2012 Starting Time: 13:00</p>	0 min.	10 min.	20 min.	30 min.
				
	40 min.	50 min.	60 min.	70 min.
				
	90 min.	100 min.	110 min.	120 min.
				
				<p>Evaluation</p> <p><input type="checkbox"/> : Nil <input checked="" type="checkbox"/> : Slight <input type="checkbox"/> : Moderate <input type="checkbox"/> : Severe</p>

Evaluation Criteria :
















Simple Dispersive Soil Test for Soil mixed with additive

<p>Sample No. <u>Moderate-1-C1</u> Original Sample No. <u>6-3</u> evaluated as <u>Moderate</u></p> <p>Additive: <u>Cement 1%</u></p> <p>Date: Feb. 15, 2012 Starting Time: 9:00</p>	0 min.	10 min.	20 min.	30 min.	
					
	40 min.	50 min.	60 min.	70 min.	80 min.
					
	90 min.	100 min.	110 min.	120 min.	<p>Evaluation</p> <p>■ : Nil □ : Slight □ : Moderate □ : Severe</p>
					

Evaluation Criteria :















Simple Dispersive Soil Test for Soil mixed with additive

<p>Sample No. <u>Moderate-1-C3</u> Original Sample No. <u>6-3</u> evaluated as <u>Moderate</u></p> <p>Additive: <u>Cement 3%</u></p> <p>Date: Feb. 15, 2012 Starting Time: 9:00</p>	0 min.	10 min.	20 min.	30 min.	
					
	40 min.	50 min.	60 min.	70 min.	80 min.
					
	90 min.	100 min.	110 min.	120 min.	<p>Evaluation</p> <p>■ : Nil □ : Slight □ : Moderate □ : Severe</p>
					

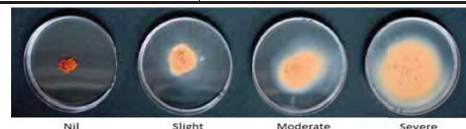
Evaluation Criteria :















Simple Dispersive Soil Test for Soil mixed with additive

Sample No. <u>Moderate-1-C5</u> Original Sample No. <u>6-3</u> evaluated as <u>Moderate</u> Additive: <u>Cement 5%</u> Date: Feb. 15, 2012 Starting Time: 9:00	0 min.	10 min.	20 min.	30 min.
				
	40 min.	50 min.	60 min.	70 min.
				
	90 min.	100 min.	110 min.	120 min.
				
				Evaluation ■ : Nil □ : Slight □ : Moderate □ : Severe

Evaluation Criteria :















Simple Dispersive Soil Test for Soil mixed with additive

Sample No. <u>Moderate-1-C1</u> Original Sample No. <u>6-3</u> evaluated as <u>Moderate</u> Additive: <u>Cement 1%</u> Date: Feb. 15, 2012 Starting Time: 9:00	0 min.	10 min.	20 min.	30 min.
				
	40 min.	50 min.	60 min.	70 min.
				
	90 min.	100 min.	110 min.	120 min.
				
				Evaluation ■ : Nil □ : Slight □ : Moderate □ : Severe

Evaluation Criteria :















Simple Dispersive Soil Test for Soil mixed with additive

Sample No. <u>Moderate-1-L1</u> Original Sample No. <u>6-3</u> evaluated as <u>Moderate</u> Additive: <u>Lime 1%</u> Date: Feb. 15, 2012 Starting Time: 9:00	0 min.	10 min.	20 min.	30 min.
				
	40 min.	50 min.	60 min.	70 min.
				
	90 min.	100 min.	110 min.	120 min.
				
				Evaluation ■ : Nil □ : Slight □ : Moderate □ : Severe

Evaluation Criteria :















Simple Dispersive Soil Test for Soil mixed with additive

Sample No. <u>Moderate-1-L3</u> Original Sample No. <u>6-3</u> evaluated as <u>Moderate</u> Additive: <u>Lime 3%</u> Date: Feb. 15, 2012 Starting Time: 9:00	0 min.	10 min.	20 min.	30 min.
				
	40 min.	50 min.	60 min.	70 min.
				
	90 min.	100 min.	110 min.	120 min.
				
				Evaluation ■ : Nil □ : Slight □ : Moderate □ : Severe

Evaluation Criteria :















Simple Dispersive Soil Test for Soil mixed with additive

Sample No. <u>Moderate-1-L5</u> Original Sample No. <u>6-3</u> evaluated as <u>Moderate</u> Additive: <u>Lime 5%</u> Date: Feb. 15, 2012 Starting Time: 9:00	0 min.	10 min.	20 min.	30 min.
				
	40 min.	50 min.	60 min.	70 min.
				
	90 min.	100 min.	110 min.	120 min.
				
				Evaluation ■ : Nil □ : Slight □ : Moderate □ : Severe

Evaluation Criteria :
















Simple Dispersive Soil Test for Soil mixed with additive

Sample No. <u>Moderate-1-L7</u> Original Sample No. <u>6-3</u> evaluated as <u>Moderate</u> Additive: <u>Lime 7%</u> Date: Feb. 15, 2012 Starting Time: 9:00	0 min.	10 min.	20 min.	30 min.
				
	40 min.	50 min.	60 min.	70 min.
				
	90 min.	100 min.	110 min.	120 min.
				
				Evaluation ■ : Nil □ : Slight □ : Moderate □ : Severe

Evaluation Criteria :
















Simple Dispersive Soil Test for Soil mixed with additive

<p>Sample No. <u>Moderate-1-G1</u> Original Sample No. <u>6-3</u> evaluated as <u>Moderate</u></p> <p>Additive: <u>Gypsum 1%</u></p> <p>Date: Feb. 15, 2012 Starting Time: 13:00</p>	0 min.	10 min.	20 min.	30 min.	
					
	40 min.	50 min.	60 min.	70 min.	80 min.
					
	90 min.	100 min.	110 min.	120 min.	<p>Evaluation</p> <p>■ : Nil □ : Slight □ : Moderate □ : Severe</p>
					

Evaluation Criteria :



Simple Dispersive Soil Test for Soil mixed with additive

<p>Sample No. <u>Moderate-1-G3</u> Original Sample No. <u>6-3</u> evaluated as <u>Moderate</u></p> <p>Additive: <u>Gypsum 3%</u></p> <p>Date: Feb. 15, 2012 Starting Time: 13:00</p>	0 min.	10 min.	20 min.	30 min.	
					
	40 min.	50 min.	60 min.	70 min.	80 min.
					
	90 min.	100 min.	110 min.	120 min.	<p>Evaluation</p> <p>■ : Nil □ : Slight □ : Moderate □ : Severe</p>
					

Evaluation Criteria :



Simple Dispersive Soil Test for Soil mixed with additive

Sample No. <u>Moderate-1-G5</u> Original Sample No. <u>6-3</u> evaluated as <u>Moderate</u> Additive: <u>Gypsum 5%</u> Date: Feb. 15, 2012 Starting Time: 13:00	0 min.	10 min.	20 min.	30 min.
	40 min.	50 min.	60 min.	70 min.
	90 min.	100 min.	110 min.	120 min.
				Evaluation ■ : Nil □ : Slight □ : Moderate □ : Severe

Evaluation Criteria :
















Simple Dispersive Soil Test for Soil mixed with additive

Sample No. <u>Moderate-1-G7</u> Original Sample No. <u>6-3</u> evaluated as <u>Moderate</u> Additive: <u>Gypsum 7%</u> Date: Feb. 15, 2012 Starting Time: 13:00	0 min.	10 min.	20 min.	30 min.
	40 min.	50 min.	60 min.	70 min.
	90 min.	100 min.	110 min.	120 min.
				Evaluation ■ : Nil □ : Slight □ : Moderate □ : Severe

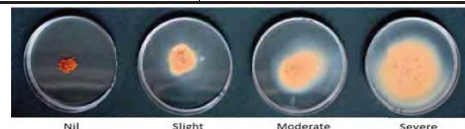
Evaluation Criteria :
















Simple Dispersive Soil Test for Soil mixed with additive

<p>Sample No. <u>Moderate-1-F1</u> Original Sample No. <u>6-3</u> evaluated as <u>Moderate</u></p> <p>Additive: <u>Fly ash 1%</u></p> <p>Date: Feb. 15, 2012 Starting Time: 13:00</p>	0 min.	10 min.	20 min.	30 min.	
					
	40 min.	50 min.	60 min.	70 min.	80 min.
					
	90 min.	100 min.	110 min.	120 min.	<p>Evaluation</p> <p>■ : Nil □ : Slight □ : Moderate □ : Severe</p>
					

Evaluation Criteria :
















Simple Dispersive Soil Test for Soil mixed with additive

<p>Sample No. <u>Moderate-1-F3</u> Original Sample No. <u>6-3</u> evaluated as <u>Moderate</u></p> <p>Additive: <u>Fly ash 3%</u></p> <p>Date: Feb. 15, 2012 Starting Time: 13:00</p>	0 min.	10 min.	20 min.	30 min.	
					
	40 min.	50 min.	60 min.	70 min.	80 min.
					
	90 min.	100 min.	110 min.	120 min.	<p>Evaluation</p> <p>■ : Nil □ : Slight □ : Moderate □ : Severe</p>
					

Evaluation Criteria :
















Simple Dispersive Soil Test for Soil mixed with additive

Sample No. <u>Moderate-1-F5</u> Original Sample No. <u>6-3</u> evaluated as <u>Moderate</u> Additive: <u>Fly ash 5%</u> Date: Feb. 15, 2012 Starting Time: 13:00	0 min.	10 min.	20 min.	30 min.	
					
	40 min.	50 min.	60 min.	70 min.	80 min.
					
	90 min.	100 min.	110 min.	120 min.	Evaluation ■ : Nil □ : Slight □ : Moderate □ : Severe
					

Evaluation Criteria :



Simple Dispersive Soil Test for Soil mixed with additive

Sample No. <u>Moderate-1-F7</u> Original Sample No. <u>6-3</u> evaluated as <u>Moderate</u> Additive: <u>Fly ash 7%</u> Date: Feb. 15, 2012 Starting Time: 13:00	0 min.	10 min.	20 min.	30 min.	
					
	40 min.	50 min.	60 min.	70 min.	80 min.
					
	90 min.	100 min.	110 min.	120 min.	Evaluation ■ : Nil □ : Slight □ : Moderate □ : Severe
					

Evaluation Criteria :

