



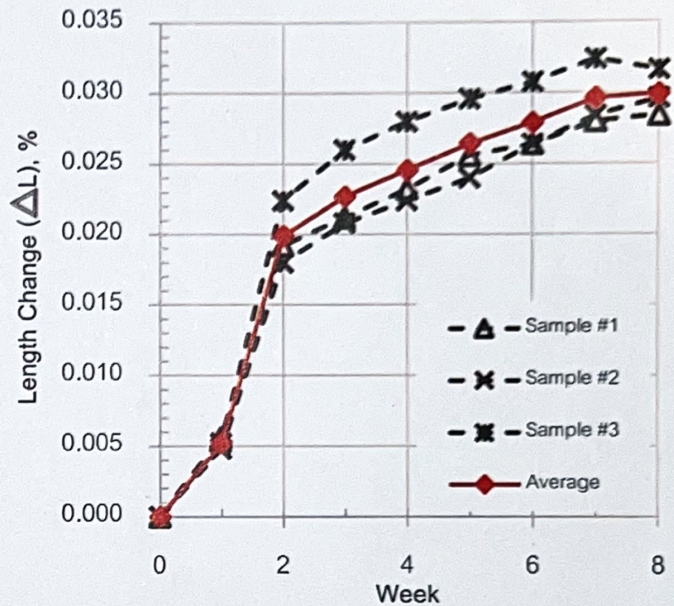
# CIVIL ENGINEERING LABORATORY

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## Length Change of Hardened Hydraulic-Cement Mortars Exposed to a Sulfate Solution (ASTM C 1012)

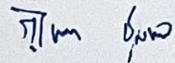
Specimen From : บริษัท สิงห์สุวรรณ เซอร์วิส จำกัด  
Project Name : ตั้งเก็บน้ำใส สถานีสูบน้ำจ่ายน้ำลาดพร้าว  
Type of Specimen : MW4017WPF3CR (Concrete Bar 75x75x285 mm.)  
Date of Mixing : 28-May-23  
Date of Testing : 29-Jun.-23 – 24-Aug.-23

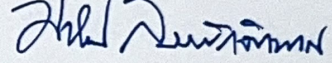
Day	Free expansion of mortar bars (%)			
	Sample #1	Sample #2	Sample #3	Average
0	0	0	0	0
1	0.006	0.005	0.005	0.005
2	0.019	0.018	0.022	0.020
3	0.021	0.021	0.026	0.023
4	0.023	0.022	0.028	0.025
5	0.026	0.024	0.030	0.026
6	0.026	0.026	0.031	0.028
7	0.028	0.028	0.032	0.030
8	0.028	0.030	0.032	0.030



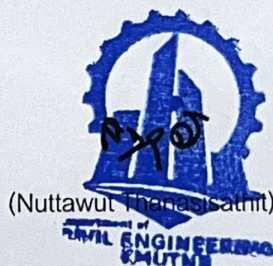
Note: Sodium sulfate solution at the concentration of 5%

### ลิขสิทธิ์เฉพาะ บก.สิงห์สุวรรณ เซอร์วิส PENETRON

Tested by :   
(Poopatai Chumpol)

Checked by :   
(Manote Sappakittipakorn)

Department Head :



Remarks : 1. The test results are good only for those specimens tested.  
2. This certificate of the test results is not valid unless signed and sealed.