

SGS Korea Co., Ltd.

Construction Materials Testing Center

Issue No. : CMT2020-1145R1

Address : 20,Dongtansandan 10-gil,Dongtan-myeon, Hwaseong-si, Gyeonggi-do, Korea, 18487

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https://www.sgsgroup.kr

1. Applicant

- Company : HANIL CEMENT Co., Ltd.
- Address : 330, Gangnam-daero, Gangnam-gu, Seoul, Korea
- Receipt Date: December 09, 2019

2. Test Purpose : Maintenance of quality

3. Sample Description : Faster Low-heat cement

4. Date of Test : December 16, 2019 ~ February 10, 2020

5. Location of Test : ☒ Permanent Testing Lab ☐ On Site Testing

(address : Concrete / Mortar Laboratory, SGS Korea Co., Ltd, 20 ,Dongtansandan 10-gil, Dongtan-myeon, Hwaseong-si, Gyeonggi-do)

6. Test Results :

No.	Test Items	Units	Test Methods	Results
1	Density	g/cm ³	KS L 5201 : 2016	2.92
2	Fineness by Blaine	cm ² /g		3 805
3	Setting time	Initial		260
		Final		6 : 30
4	Compressive strength	3 days		15.9
		7 days		35.4
		28days		48.1
5	Heat of Hydration	3 days		145
		7 days		230
		28days		264
6	Loss on ignition	%		1.2
7	SiO ₂	%		25.8
8	Al ₂ O ₃	%		9.57
9	Fe ₂ O ₃	%		6.51
10	CaO	%		48.3
11	MgO	%		3.37
12	SO ₃	%		3.75

※ This test report supersedes the Report No. CMT2020-1145

Duplicate -End-

Tester : Moon, SeungKwon
Tel : 031-646-0811

Technical Manager : Kim, DongHoon
Tel : 031-646-0812

- Remarks :
1. The results shown in this report refer only to the sample(s) submitted by applicant. This test report can not be reproduced or used other than the test purpose stated in above.
 2. The authenticity of the test report can be confirmed on the SGS website. (<http://e-checking.kr.sgs.com/construction/>)

May 20, 2020

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