

CABLE-ADDRESS
COPENHAGEN: FOLASMIDT
LONDON: CHALKINESS

F. L. SMIDTH & Co. ENGINEERS

PLANS & MACHINERY

FOR

CEMENT WORKS, BRICK WORKS, LIME WORKS, MORTAR WORKS
AND

MINING INDUSTRIES

ENGINEERING WORKS

IN

COPENHAGEN, LÜBECK & NEW YORK

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BIELITZ:

(AUSTR. SILESIA)

CODES USED:

A. B. C. CODE, 4TH AND 5TH EDITIONS
THE ENGINEERING TELEGRAPHIC CODE
LIEBER'S STANDARD TELEGRAPHIC CODE
WESTERN UNION TELEGRAPHIC CODE
(UNIVERSAL EDITION)

CP/HB.

ALL AGREEMENTS ARE CONTINGENT UPON STRIKES,
ACCIDENTS, DELAYS OF CARRIERS AND OTHER CAUSES
BEYOND OUR CONTROL.

COPENHAGEN B., 33, VESTERGADE January 6th 1914

Messrs. The Siam Cement Company Ltd.,

B a n g k o k .

Dear Sirs,

Referring to our letter of the 18th ult. we have the pleasure to communicate to you the further results of our examination of your raw materials.

The first cement we have made from your limestone and clay was perfectly sound, and after having added 1% of gypsum to the cement, the setting time was normal.

After this we made another cement with a little more lime to try if it were possible to get the setting time sufficiently long without adding any gypsum to the cement. The clinker were sprinkled with water after they had been cooled, the result being that the setting time, without any gypsum in the cement, was about two

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hours. The cement began to set half an hour after the mortar had been prepared. The soundness of the cement was good, the extention in the le ^{new} Cantelier test being 2 m/m only.

The analysis of the two cements show:

	cement No. I:	cement No. II:
SiO ₂	22,3 %	20,8 %
R ₂ O ₃	9,8 "	9,6 "
CaO	66,7 "	67,8 "
MgO	0,8 "	0,6 "
Loss by ignition	0,2 "	0,6 "
Hydraulic modulus	2,08	2,23

The tensile and crushing strength of the two cements (one cement : three sand) was the following:

	cement No. I:		cement No. II:	
	Tensile strength	Crushing strength	Tensile strength	
After 7 days:	28 days	7 days	28 days	7 days
	21,5 kg/cm ²	23,0 kg/cm ²	190 kg/cm ²	355 kg/cm ²
	20,5 "	22,5 "	195 "	365 "
	22,5 "	23,5 "	185 "	355 "
	23,0 "	22,0 "	190 "	335 "
	20,0 "	20,5 "	190 "	335 "
	21,5 "	22,3 "	190 "	349 "

We have not yet made any more tests with the cement No. II but will communicate the results as soon as we have arrived at the same.

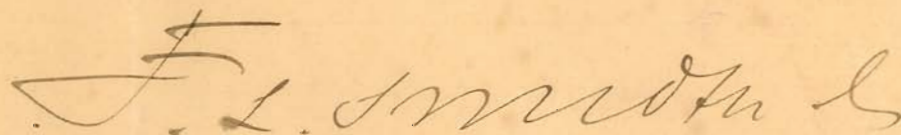
From the above particulars you will note that the cement No. I, in which we used 1 % of gypsum does not show so good figures for crushing strength after seven days as might be desired. After 28 days the quality of this cement appeared, however, to be rather good.

The first result of the testing of cement No. I justifies to expect that the quality of this cement will be exceedingly good.

As to your question about the temperature required for the calcination we may say that we have found this temperature for your materials to be about the ordinary one. The burning of the cement had a perfectly normal course, and the clinker were not harder than we generally get them by the tests in our laboratory.

Hoping that the above information will be of interest to you, we remain,

Yours truly,

A handwritten signature in cursive script, appearing to read "F. L. Smidth". The signature is written in dark ink and is positioned below the typed name "Yours truly,".