



**FACULTY OF ENGINEERING
CHULALONGKORN UNIVERSITY
FIRE SAFETY RESEARCH CENTER**



- TYPE OF TEST** : DETERMINATION OF THE FIRE RESISTANCE OF NON-LOADBEARING ELEMENTS OF CONSTRUCTION
- TEST SPECIMEN** : **THAICON WALL**
The specimen is a 3 m x 3 m vertical construction comprising 20 cm x 60 cm x 7.5 cm light weight blocks with 7.5-cm thick plastering finishes on both the exposed and unexposed sides. The specimen was installed on a 3 m x 3 m steel testing frame. The details of the specimen are shown in Appendix C. The specimen was provided and installed by the client.
- CLIENT** : **Thai Light Block and Panel Company Limited**
59 Moo 4 Samkhok-Chiang Rak Noi Rd. Tumbol Chiang Rak Noi
Amphoe Sam Khok, Pathum Thani 12160, Thailand
- DATE OF TEST** : March 30, 2021
- TEST MACHINE** : Large-scale vertical furnace (Fire Tester III) at the Fire Safety Research Center (FSRC), Department of Civil Engineering, Chulalongkorn University (Thailand). The furnace is capable of producing a standard temperature-time relationship according to BS 476 Part 20: 1987.
- TEST METHOD** : The testing procedures follow the British Standard BS 476: Fire tests on building materials and structures
BS 476 Part 20: 1987: Method for determination of the fire resistance of elements of construction (general principles)
BS 476 Part 22: 1987: Methods for determination of the fire resistance of non-loadbearing elements of construction Section 5: Determination of the fire resistance of partitions.
- TEST RESULTS** : The non-loadbearing element of construction described above has the fire resistance of each criterion for the period stated:
(The test results are good only for the specimen tested.)

Criteria	Fire Resistance (hr:min)	Remarks
Insulation	4:00	The test was terminated by the client. The average and the maximum temperatures of the unexposed face of the specimen did not exceed 140°C and 180°C, respectively, above the initial mean value of 31°C.
Integrity	4:00	The test was terminated by the client. During the test, all integrity criteria were fulfilled (no sustained flaming and no through gap such that the 6 mm diameter gap gauge could penetrate).

Date: April 12, 2021

Tested by:
(Assistant Prof. Dr. Chatpan Chintanapakdee)

Checked by:
(Professor Dr. Thanyawat Pothisiri)

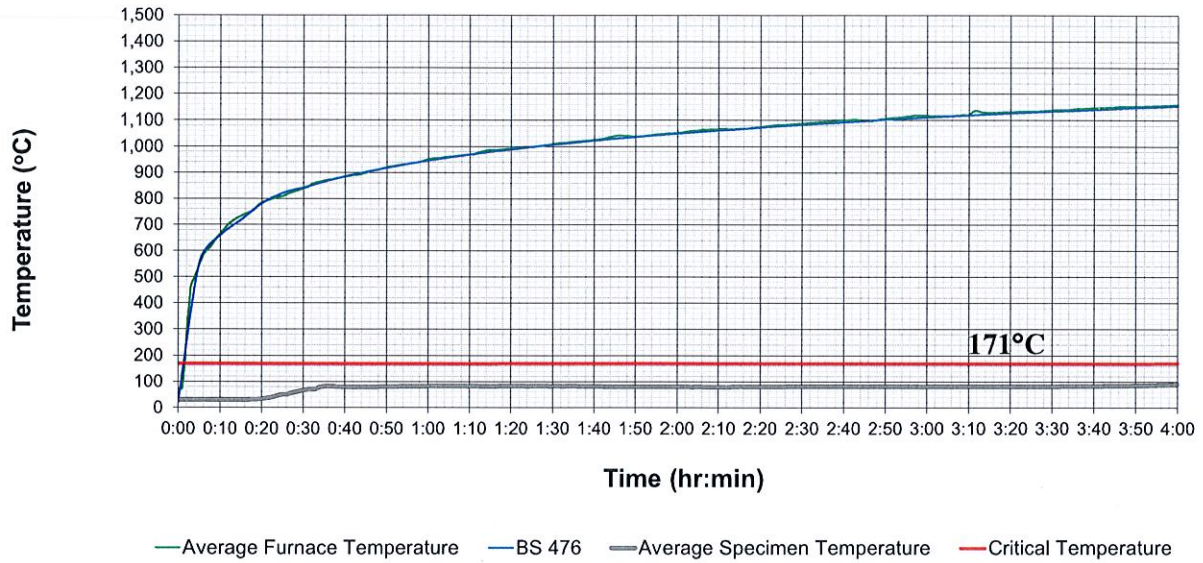
.....
(Associate Prof. Dr. Tirawat Boonyatee)
On Behalf of Head of Civil Engineering Department



FACULTY OF ENGINEERING
CHULALONGKORN UNIVERSITY
FIRE SAFETY RESEARCH CENTER



FURNACE TEMPERATURE



(Dr. Sirichai Pethrung)
Authorized Testing Officer