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 : **TP 8**

The specimen is a door set consisting of a single-sided steel door leaf with a vision panel and a steel door frame. The dimensions of the door leaf are 2000 mm x 900 mm x 45 mm. The specimen was mounted in a 15 cm thick reinforced concrete wall, which was installed on the 3 m x 3 m testing frame. The door leaf consists of 1.6-mm thick zinc coated steel sheets and rock wool with a density of 110 kg/m^3 in between. The vision panel is made of 6 mm thick ceramic glass having dimensions of 166 mm x 670 mm at the location above the door handle. The door leaf is locked with the door frame by a panic bar and three stainless steel hinges. Smoke rubber seal was installed around the edge of the door frame. Details of the specimen are shown in Appendix C. The specimen was provided and installed by client.

CLIENT : **MPK VISNU CO., LTD.**
189 Suwinthawong Road, Sanseab, Minburi
Bangkok 10510, Thailand

DATE OF TEST : December 8, 2015

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 procedure follows 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 6: Determination of the fire resistance of fully insulated door sets and shutter assemblies.

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	0:24	The maximum temperature of the unexposed face of the specimen exceeded 180°C above the initial mean unexposed face temperature of 28°C.
Integrity	2:03	The specimen had a passage of flame or gases hot enough to ignite the cotton pad.

Date: December 24, 2015

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

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(Associate Prof. Dr. Thanyawat Pothisiri)

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

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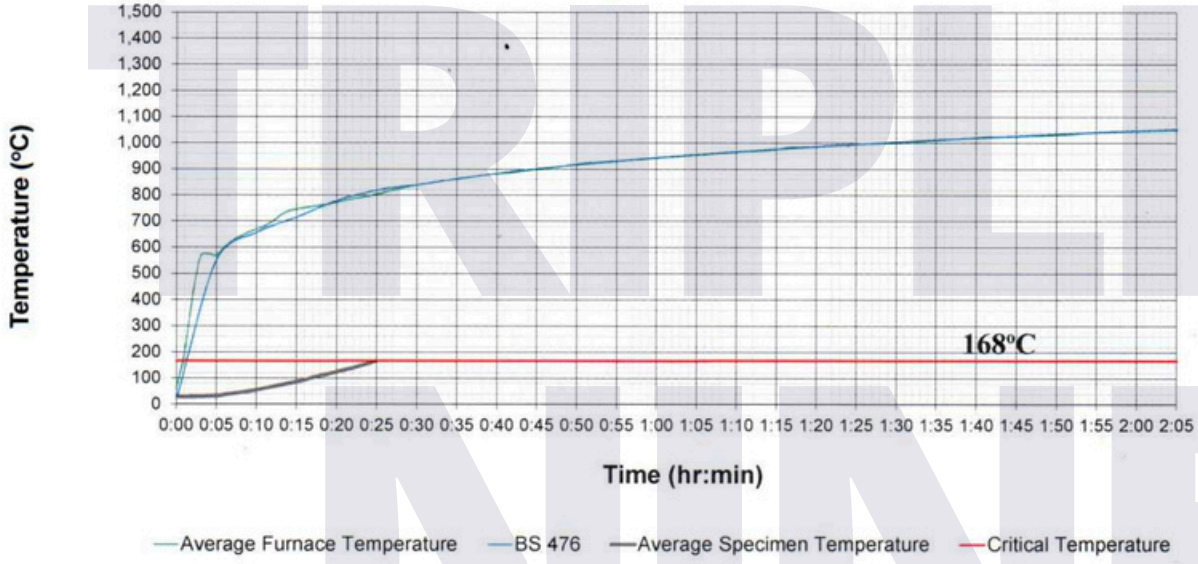
FURNACE TEMPERATURE



(Mr. Sirichai Pethrung)
Authorized Testing Officer