



**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 7

The specimen is a doorset consisting of a single-sided composite door leaf having dimensions of 2000 mm x 900 mm x 47 mm and a steel door frame. The total weight of the doorset was 88.5 kg. The specimen was mounted in a 15-cm thick reinforced concrete wall, which was installed on the 3 m x 3 m steel testing frame. The door leaf consisted of 1.6-mm thick zinc coated steel sheets and rock wool with a density of 110 kg/m³. The door leaf was locked with the door frame by a panic bar and 3 stainless hinges. Smoke rubber seal was installed around the edge of the door frame. The details of the specimen are shown in Appendix C. The specimen was provided and installed by the client.

CLIENT : **MPK VISNU CO., LTD**

189 Suwinthawong Road, Sanseab, Minburi
Bangkok 10510, Thailand

DATE OF TEST : October 7, 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 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 6: Determination of the fire resistance of fully insulated doorsets 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	0:35	The average temperature of the unexposed face of the specimen exceeded 140°C above its initial value of 32°C.
Integrity	4:00	The test was terminated by the client without passage of flame or gases hot enough to ignite the cotton pad.

Date: October 21, 2015

Tested by: Prof. Dr. Suched Likitlersuang
 (Prof. Dr. Suched Likitlersuang)

Associate Prof. Dr. Thanyawat Pothisiri
 (Associate Prof. Dr. Thanyawat Pothisiri)

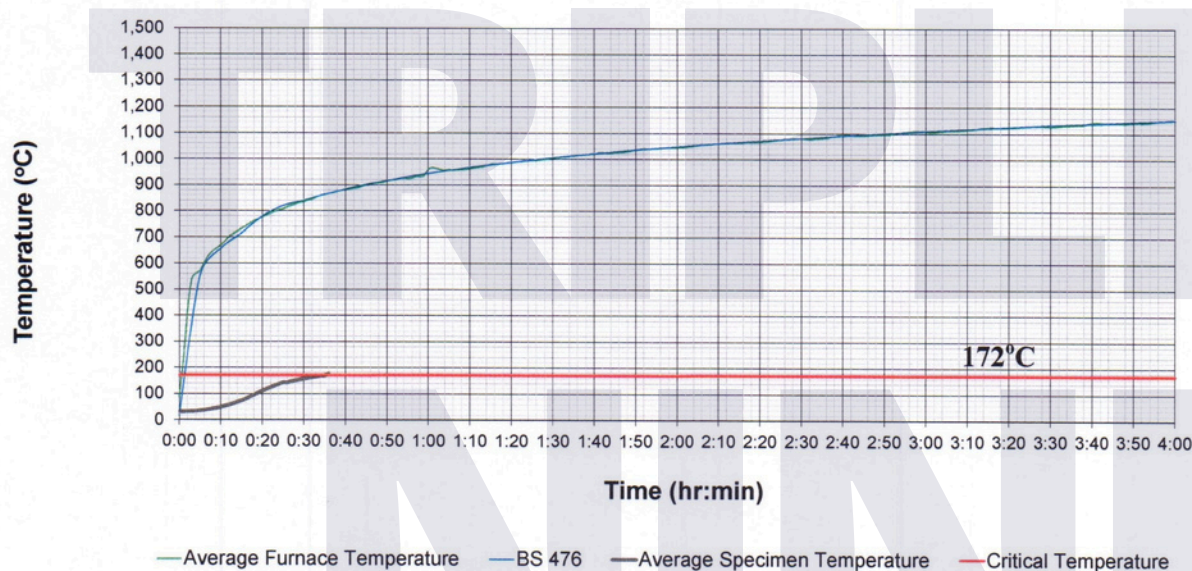
Associate Prof. Dr. Tirawat Boonyatee
 On Behalf of Head of Civil Engineering Department



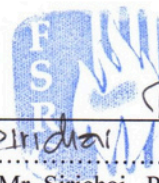
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FURNACE TEMPERATURE



By Mpk Manufacturing



Sirichai Pethrung
(Mr. Sirichai Pethrung)
Authorized Testing Officer