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 : **STEEL FIREPROOF DOOR (TRADEMARK: SPR TYPE: SFD11)**

The specimen is a doorset consisting of double-sided steel door leaves with steel door frame. The dimensions of the door leaves are (900 mm + 500 mm) x 2000 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. Each door leaf consisted of 1.6-mm thick cold rolled steel panels and rockwool blankets with a density of 110 kg/m^3 in between. The door leaves were fixed with the door frame by a heavy duty mortise lock, 2 flush bolts and 6 stainless hinges. The details of the specimen are shown in Appendix C. The specimen was provided and installed by the client.

CLIENT : **SUPA RICH CO., LTD.**

27, Soi Ramintra 48, Ramintra Road
Khannayao, Bangkok 10230, Thailand

DATE OF TEST : August 1, 2012

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	0:13	The average temperature of the unexposed face of the specimen exceeded 140°C above its initial value of 38°C.
Integrity	2:05	The specimen had a passage of flame or gases hot enough to ignite the cotton pad.

Date: August 8, 2012

Tested by: .....
(Assistant Prof. Dr. Boonchai Sangpetngam)

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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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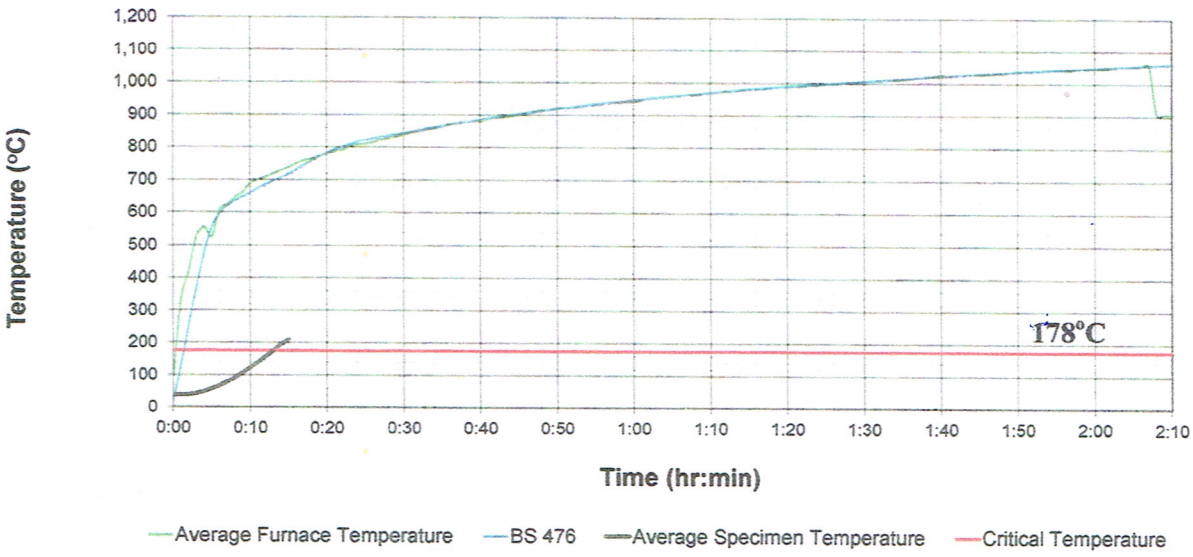
FURNACE TEMPERATURE



(Mr. Nattawut Hemathulin)
Authorized Testing Officer