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Diplomat Safe
1583-4 Songjung-dong
Gangseo-gu BUSAN
Korea, Republiken

Test of data media insert

Test method

SP Method 1716

Product

Data media insert

Product designation

DIS 1120

Sponsor

Diplomat Safe Ltd



SP Swedish National Testing and Research Institute

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1 Purpose of the test

The purpose of the test was to determine the fire resistance of the test specimen described under item no. 2.

2 Test specimen

The test specimen consisted of a data media insert designated DIS 1120. The construction is shown in the sponsor's drawing in enclosure 1. In case that the sponsor's drawing fail to correspond with the construction SP has crossed details or altered the drawing.

The insert was selected and delivered to SP by the sponsor. The insert arrived at SP on November 07, 2006. Manufacturer of the insert was Diplomat Safe Ltd.

2.1 Description of the construction

The nominal weight of the insert was 21 kg and its dimensions were:

- outer (height x width x depth) 425 x 470 x 340 mm
- inner (height x width x depth) 339 x 371 x 251 mm.

The insert was built of two layers of particleboards with an urethane board in between. The door of the insert was a single leaf door with the sides of the insert serving as door body. The door leaf was hung up on two hinges and had one latch.

2.2 Mounting of the test specimen

The data media insert was placed in the centre of SP's heating chamber.

2.3 Conditioning

The test specimen was stored in SP's furnace hall before the test. The temperature in the furnace hall was in average 22 °C and the relative humidity was in average 71 % during this time.

2.4 Control

2.4.1 Weight of the insert

The weight of the insert before the test was measured to 19.6 kg.

2.4.2 Properties of included materials

No verification was performed on the included materials.



3 Test procedure and test results

The test was performed on December 01, 2006. The test lasted 121 minutes.

3.1 Witness of test

There was no witness from the sponsor.

3.2 Heating chamber control

The heating chamber was controlled in accordance with SP Method 1716.

3.2.1 Temperatures

The heating chamber temperature was measured with 4 thermocouples positioned at a level of half of the height of the insert and with a distance of 100 mm from the vertical surfaces of the insert.

The average temperature in the heating chamber in relation to the SP Method 1716 time-temperature curve is shown in enclosure 2.

The temperature at each thermocouple in relation to the time-temperature curve is shown in enclosure 3.

3.3 Measurements on the test specimen

3.3.1 Temperatures

The temperature rise inside the insert was measured with 6 thermocouples (C11 – C16). The thermocouples were positioned as shown in enclosure 4.

The temperature rises are shown in enclosure 5.

The average temperature of thermocouples C11 – C16 at beginning of the test was 18,5 °C.

3.4 Observations

3.4.1 Observations after the test

The borders and the strips on the front side of the insert had shrunk see enclosure 6.

4 Summary

A data media insert, described under item No 2, has been tested according to SP Method 1716 during 121 minutes. The following results were obtained:

The maximum temperature rise after 120:00 minutes was 31,7 °C (thermocouple C14).

The test results relate only to the behaviour of the test specimen during the conditions of the test. At other conditions, for instance another fire curve, the behaviour of the construction may differ from the presented test results.

5 Classification

5.1 Fire technical classification

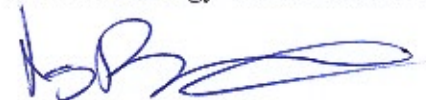
Based on the test result of the tested insert DIS 1120 and the classification criteria in the test method NT FIRE 017, the fire resistance classification of the insert is as follows:

DIS 1120 NT FIRE 017 – 120 Data

5.2 Application of test results

The test data may be applied to other inserts of identical construction provided that the external volume is not less than half of and not more than twice the volume of the tested insert.


SP Swedish National Testing and Research Institute
Fire Technology - Fire Resistance

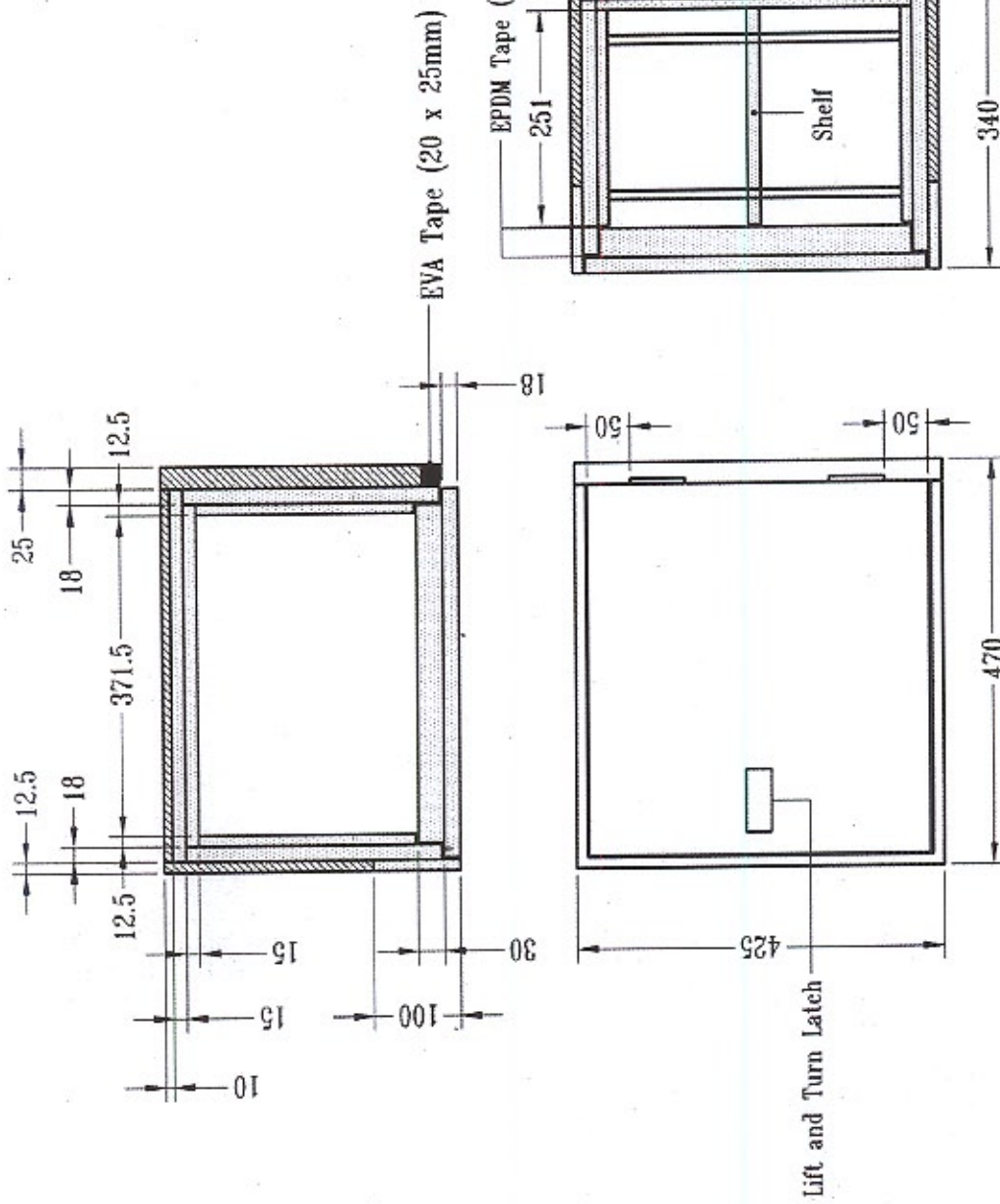


Lars Boström
Technical Manager



Joel Blom
Technical Officer



 ENCLOSURE NO: 1
 TO REFERENCE
 NO: P604437
 SIGN: JB
 FIRE TECHNOLOGY



REVISED CONTENTS		DATE	INT	CHK	CHK	APP
2						
1						
NO						

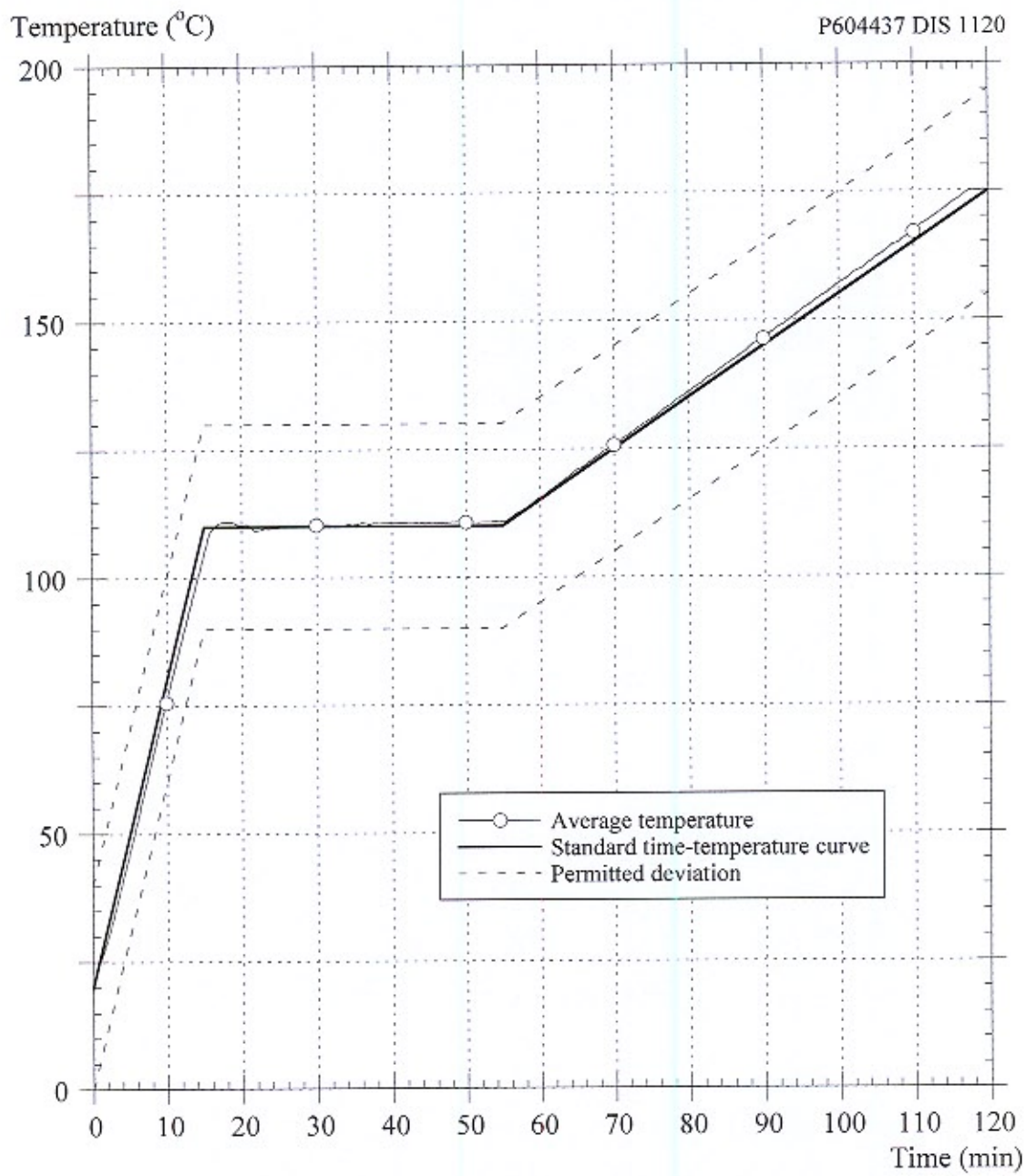
DATE	SCALE	DRAWING NO	DRAWING NAME
July 04, 06	1 / 8	DIS 1120 - 1	Outside View

DESIGNED BY	CHECKED BY	APPROVED BY
L H J	A J Y	


 SAFE LTD

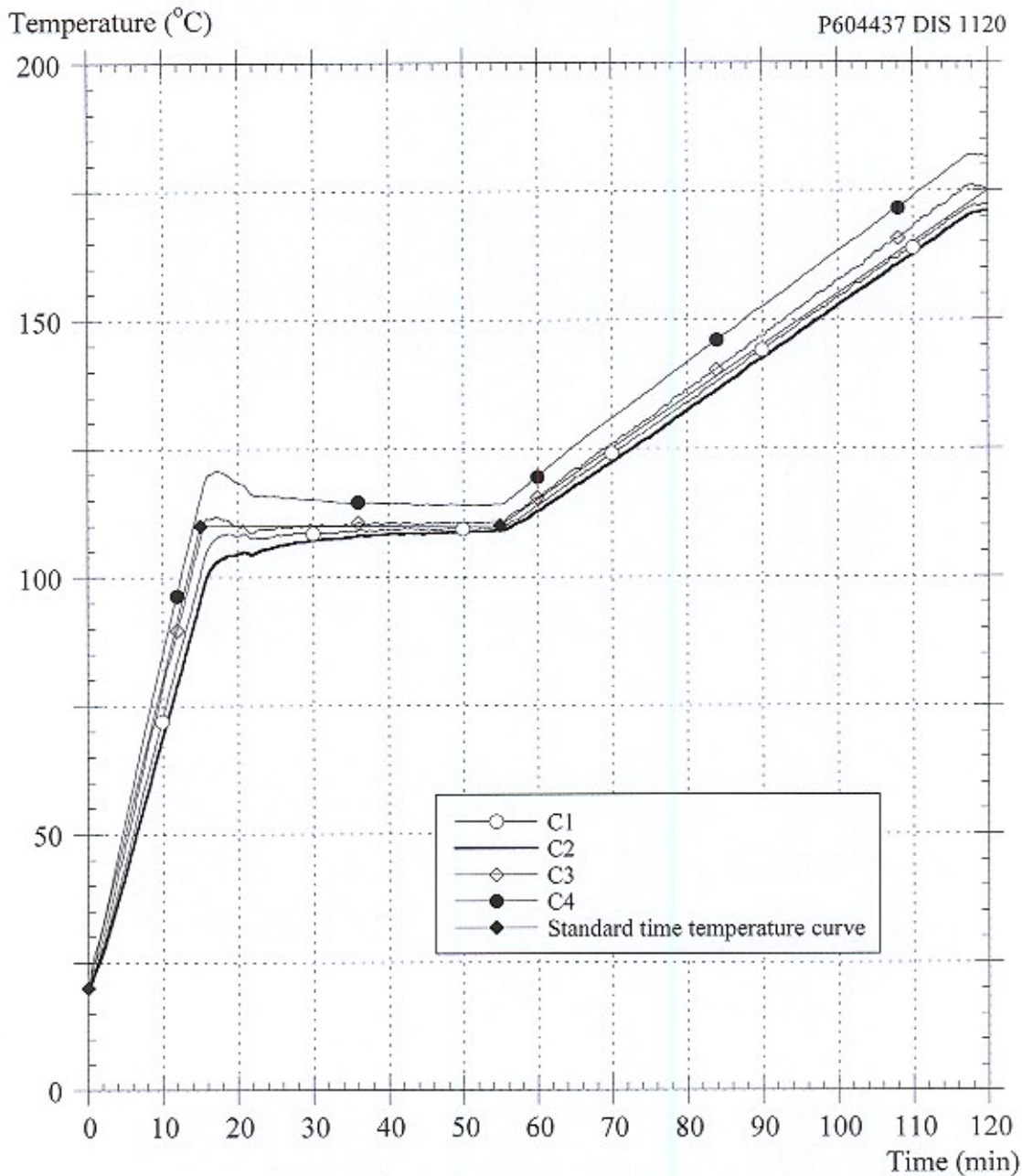


Average temperature in the heating chamber





Temperature in the heating chamber





Location of thermocouples

Schematic drawing of the insert
(DIS 1120)

Enclosure No: 4

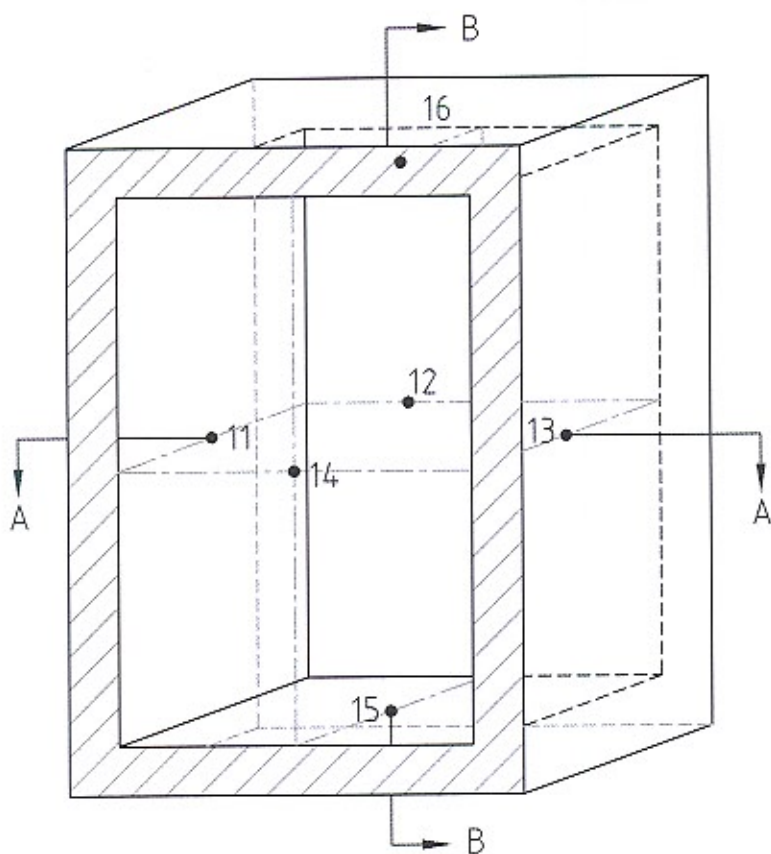
Report No: P604437

Date: 2006-11-08

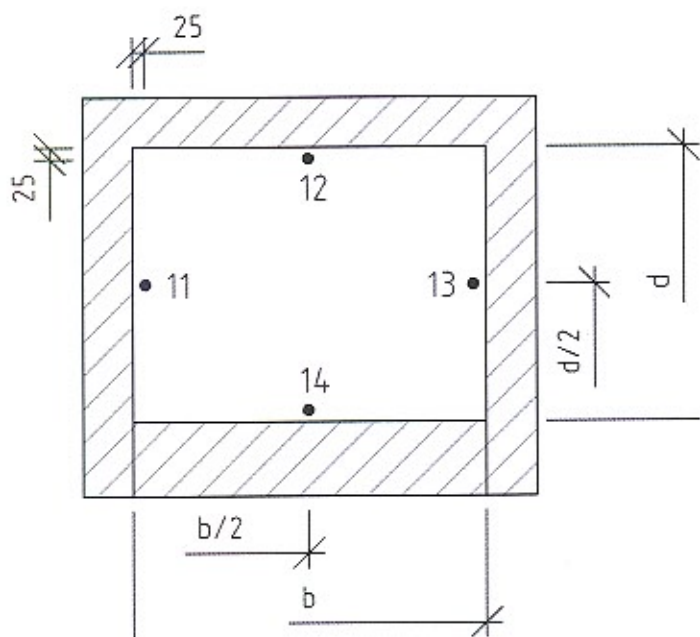
Rev. Date:

Scale: 1:15

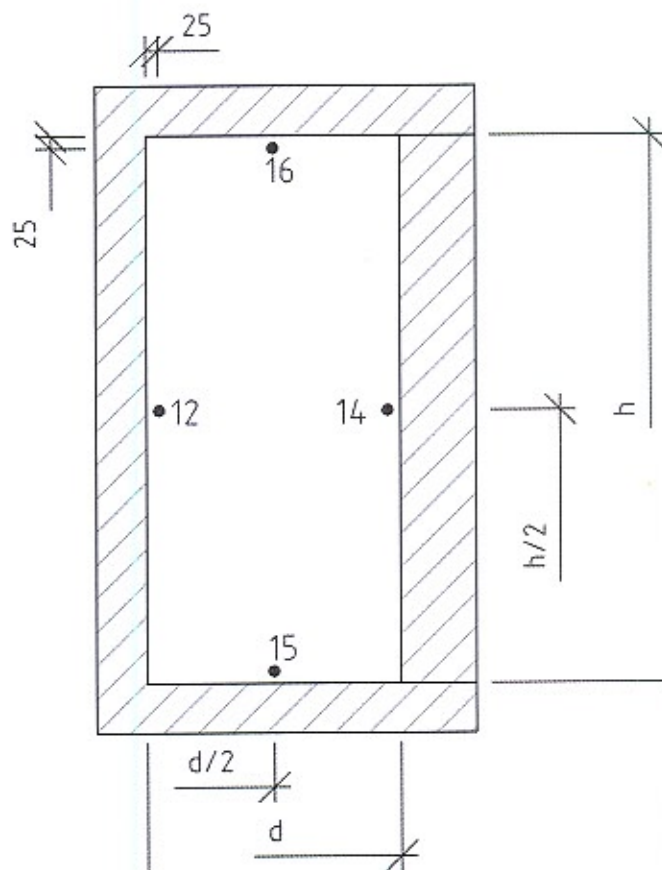
Sign: JB



- Thermocouple 11-16
Location:
Inside the insert, 25mm
from the surface

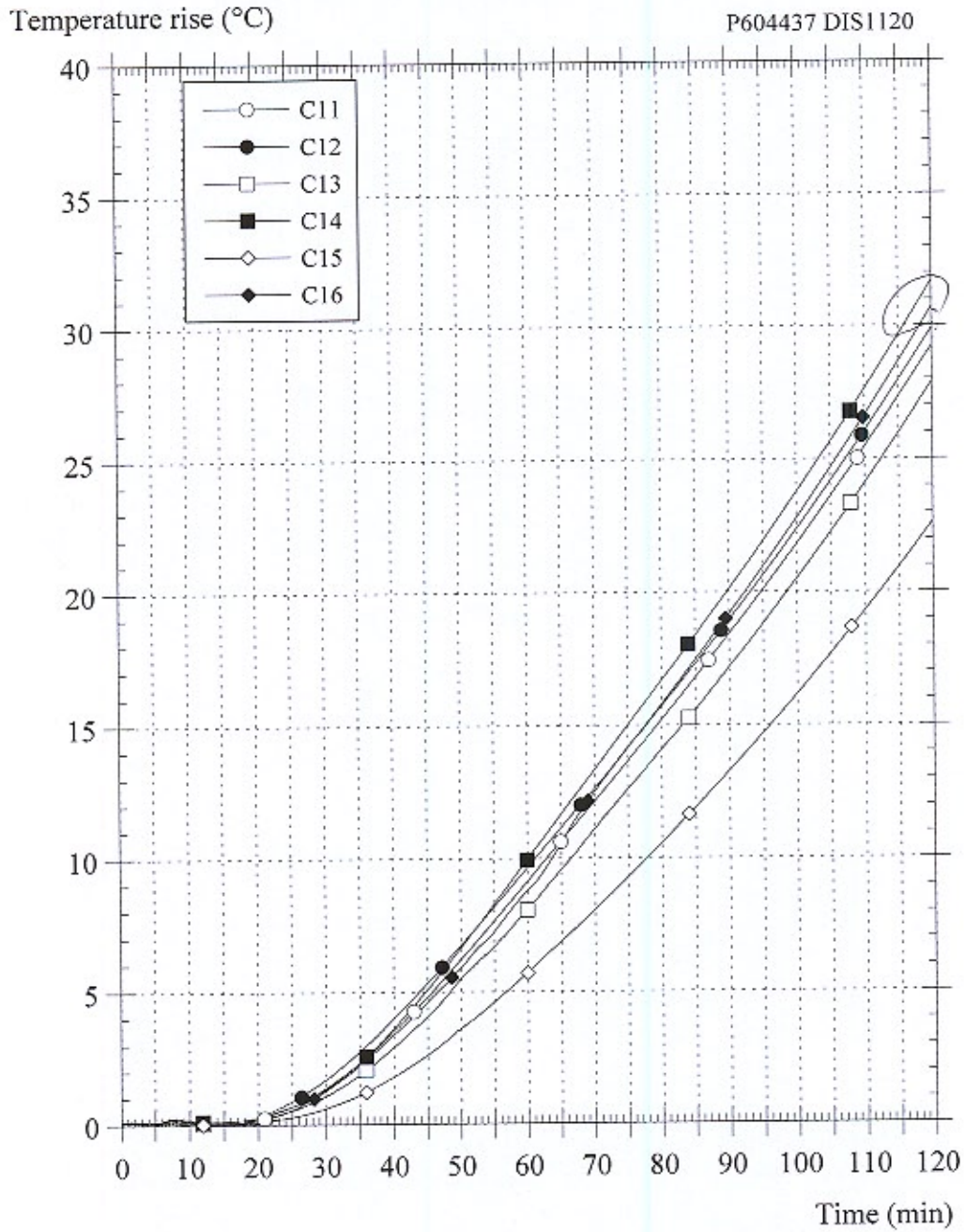


Section A-A



Section B-B

Temperature rise inside insert



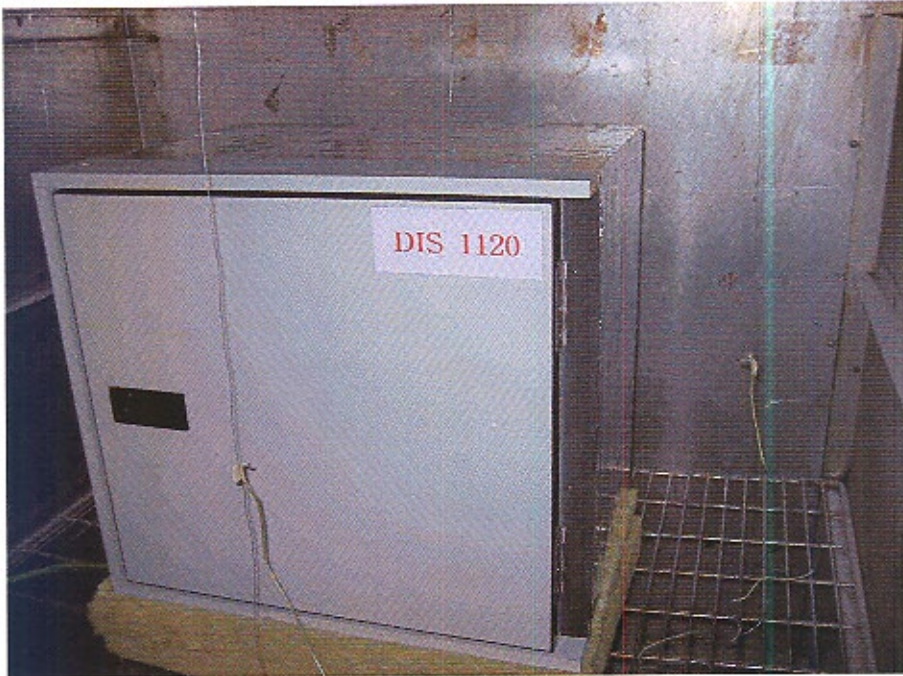
ENCLOSURE 6

Report no: P604437

Photo no: 1

Prior to the test

The DIS 1120 insert.

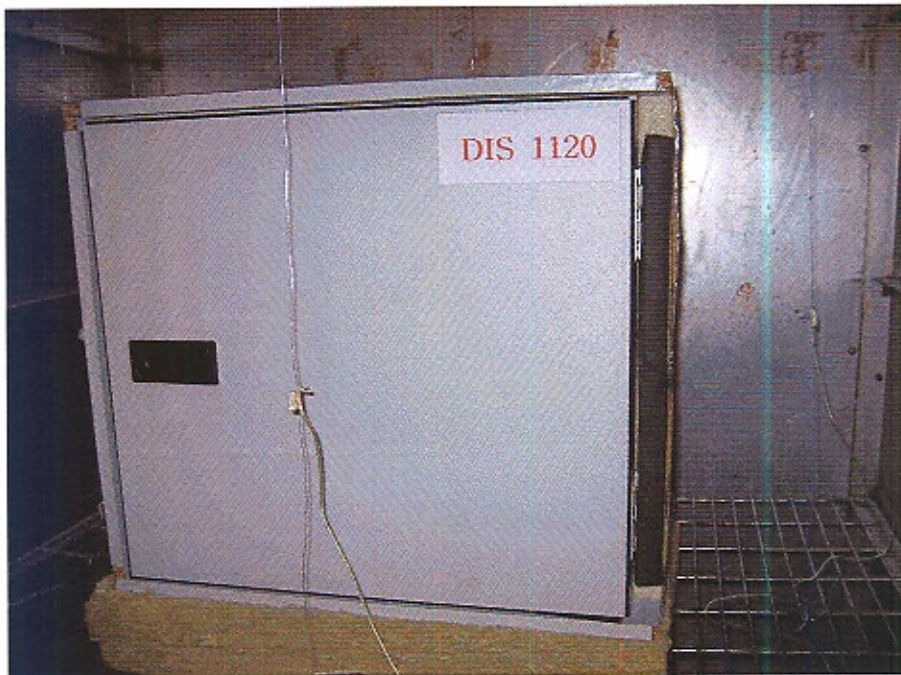


Report no: P604437

Photo no: 2

After the test:

The DIS 1120 insert.



Report no: P604437

Photo no: 3

After the test:

The DIS 1120 insert.

