



TEST REPORT

Informe de prueba

Número No. : GZIN170902787CCM-01

Fecha Date : Nov. 30, 2017

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Test Item 4: Thermal conductivity

Prueba del ítem 4: Conductividad térmica

Test Method: EN 12667:2001 Heat flow meter method

Método de prueba: EN 12667:2005 método del caudalímetro térmico

Test Condition:

Condiciones de la prueba:

Specimen: 299mm×298mm×73.5mm, 1pc

Especimen:

Density: about 805kg/m³

Densidad: Alrededor de 805 kg/m³

Mean temperature: 25°C

Temperatura media:

Temperature difference: 10°C(son grados celsius)

Diferencia de Temperatura:

Lab environmental condition: 23±2°C, 50±5%RH (Humedad relativa del aire)

Condiciones ambientales del laboratorio:

Test Result:

Resultado de la prueba:

Test Item Prueba del ítem	Test Result Resultado de la prueba:
Thermal conductivity Conductividad térmica	0.223 W/(m·K)

Note: 1.The test result can not be compared with other results obtained from different test conditions, and should not be cited to the use condition directly.

2.The above test was carried out by SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd..

Nota:

1. El resultado de la prueba no puede compararse con otros resultados obtenidos en condiciones de prueba diferentes, y no debe referenciarse directamente a la condición de uso.
2. La prueba anterior fue realizada por los servicios técnicos de SGS-CSTC standards (Shanghai) Co., Ltd..

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Prueba del ítem 5: Prueba de resistencia al fuego

Test Item 5: Fire resistance test

1. Introduction 1. Introducción.

The fire resistance of a system in accordance with EN 13501-2:2016, Clause 7.5.2 Partitions.

The sample was symmetrical element, resist fire from either side which was exposed to elevated temperatures as dictated by the EN 1364-1:2015 Fire resistance tests for non-loadbearing elements

Part 1: Walls, time-temperature curve for a period of 180 minutes under Non-loaded condition.

The test was conducted on OCT.27, 2017.

La resistencia al fuego de un sistema conforme a la norma EN 13501-2:2016, cláusula 7.5.2 Particiones.

La muestra era un elemento simétrico, resistente al fuego por ambos lados, que se expuso a temperaturas elevadas, tal como dicta la norma EN 13501 para ensayo de resistencia al fuego para elementos no portantes.

Parte 1: Paredes, curva tiempo-temperatura para un periodo de 180 minutos en condición sin carga.

La prueba se realizó en el 27 de octubre, 2017.

2. Details of classified product

2. Detalles de los productos clasificados.

2.1 General

2.1 General

The product is defined as non-load bearing wall construction.

El producto se define como un muro de construcción no portante

2.2 Product description

2.2 Descripción del producto.

The details of product were given below have been prepared from information provided by the sponsor of the test.

Los detalles del producto que figuran a continuación han sido elaborados a partir de información facilitada por el patrocinador de la prueba

Size: 2440mm×610mm×100mm.

Dimensión:

3. Test results

3. Resultados de la prueba:

Test method Método de prueba	Parameter Parámetro	Results Resultados
EN 1364-1:2015	Integrity Integridad	Sin fallos
	Almohadilla de algodón Cotton pad	No Failure @ 180min
	Medidor de holgura Gap gauges	Sin fallos No Failure @ 180min
EN 1364-1:2015	Llama sostenida Sustained flaming	Sin fallos No Failure @ 180min
	Insulation Aislamiento	Sin fallos
	Average temperature rise Aumento de temperatura media	No Failure @ 180min
EN 1364-1:2015	Maximum temperature rise Aumento de temperatura máxima	Sin fallos No Failure @ 180min

The Test was terminated at the request of test sponsor.

La prueba se dio por terminada a petición del patrocinador de la prueba

Details of test results refer to Appendix A.

Para detalles de la prueba ver el apéndice A.

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4. Classification and field of application

4. Clasificación y campo de aplicación.

4.1 Reference of classification

Referencia de clasificación

This classification has been carried out in accordance with clause 7.5.2 of EN 13501-2:2016.

Referencia de clasificación

4.2 Classification

Clasificación

The product, EPS CEMENT STANDWICH PANEL non-load bearing wall construction, is classified according to the following combinations of performance parameters and classes as appropriate.

El producto, EPS Panel Sandwich de Homigón, muro de construcción no portante, se clasifica de acuerdo con las siguientes combinaciones de parámetros de rendimiento y clases, según corresponda.

Fire resistance classification:

EI 180

Clasificación de resistencia al fuego: EI 180

4.3 Field of application

Campo de aplicación.

This classification is only valid for the wall construction, which are the same in details to the tested construction, including materials and installation of assembly used.

Esta clasificación solo es válida para la construcción de muros, que sean iguales en detalles a la construcción ensayada, incluidos los materiales y la instalación del montaje utilizado.

5. Limitations

Limitaciones

This classification report does not represent type approval or certification of the product.

Este informe de clasificación no representa la aprobación de tipo ni la certificación del producto.

Appendix A, Test details

Apéndice A, Detalles de la prueba

A.1 Test Conducted

Prueba realizada

This test is conducted as per EN 1364-1:2015 Fire resistance tests for non-loadbearing elements Part

1: Walls.

Esta prueba se lleva a cabo según EN 1364-1:2015, prueba de resistencia al fuego para elementos no portantes, parte 1: Paredes

Classification in according to EN 13501-2:2016, clause 7.5.2 Partitions.

Clasificación según EN 13501-2:2016, cláusula 7.5.2 Particiones.

A.2 Test Assembly

Montaje de prueba

Specimen size: 2440mm×610mm×100mm, the specimen was installed by a representative of Lab on

Dimensión del espécimen: 2440 mmx610 mmx 100 mm, el espécimen fue instalado por un representante de Laboratorio el 26 de octubre de 2017.

OCT.26, 2017.

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A.3 Equipment Equipo

Sixteen mineral insulated thermocouples, which were kept at 100 mm away from the surface of the specimen, were provided to monitor the temperature of the furnace. The locations and reference numbers of the furnace thermocouples are shown in Figure 1.

Dieciséis termopares con aislamiento mineral, que se mantuvieron a 100 mm de distancia de la superficie de la muestra, se proporcionaron para controlar la temperatura del horno.

Las ubicaciones y los números de referencia de los termopares del horno se muestran en la figura 1.

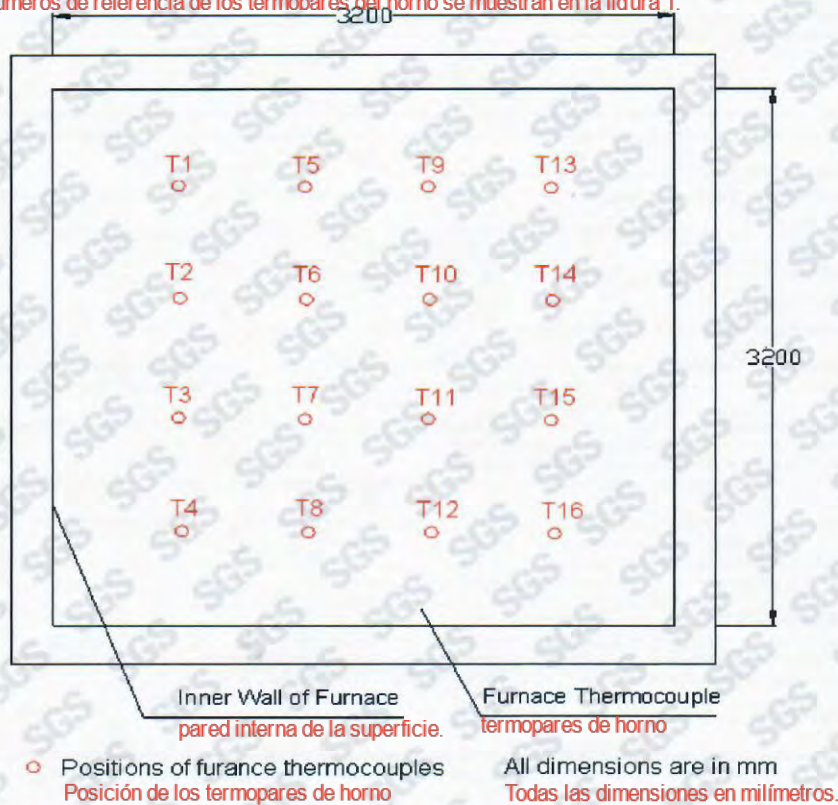


Figure 1 - Plan of Furnace Thermocouples
Figura 1 - Plano de los termopares de horno.

A. 4 Test procedure Procedimiento de prueba

The test was conducted in accordance with the procedure specified in EN 13501-2:2016

The ambient temperature of test area was measured at commencement of test.

La prueba se llevó a cabo de acuerdo con el procedimiento especificado en EN 13501-2:2016. La temperatura ambiente del área de prueba se midió al inicio de la prueba.

The furnace was controlled so that the mean furnace temperature, deviation from the mean furnace temperature and uniformity of temperature distribution complied with the requirement of EN 1364-

1:2015. Sixteen furnace thermocouples were used to determine the mean furnace temperature.

El horno fue controlado de manera que la temperatura media del horno, la desviación de la temperatura media del horno y la uniformidad de la distribución de la temperatura cumplieron con los requisitos de EN 1364-1:2015. Se utilizaron dieciséis termopares de horno para determinar la temperatura media del horno.

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The temperature of the unexposed face was monitored by means of 9 thermocouples fixed to the unexposed surface of the sample. All thermocouples will be used to determine the temperature of each point of the sample and No.3, 4, 6, 8 and 9 thermocouples will be used to calculate the mean temperature of the sample. *La temperatura de la cara no expuesta se monitorizó mediante 9 termopares fijados a la superficie no expuesta de la muestra. Todos los termopares se utilizarán para determinar la temperatura de cada punto de la muestra, y los termopares 3, 4, 6, 8 y 9 se utilizarán para calcular la temperatura media de la muestra.*

The details of the various unexposed surface thermocouples are shown in Figure 2.

Los detalles de los diferentes termopares de la superficie no expuesta se muestran en la Figura 2.



Dimensions in mm
Medidas en milímetros.

No. 3, 4, 8, 9 in the center of each quarter for specimen;
No. 6 in the center of the specimen

Los números 3, 4, 8 y 9 se encuentran en el centro de cada cuarto de la muestra. El número 6 se encuentra en el centro de la muestra.

- positions for thermocouples for average temperature rise
- positions for thermocouples for maximum temperature rise

Estos termopares se utilizan para calcular la temperatura promedio de la muestra.

Estos termopares se utilizan para calcular la temperatura máxima de la muestra.

Figure 2 - Position for unexposed face thermocouples

Figura 2 - Posición de los termopares en la cara no expuesta.

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A.5 Test Results Resultados de la prueba.

The following data were recorded during the test: Los siguientes datos fueron registrados durante la prueba:

a) The actual mean furnace temperature/ time curve as well as the standard furnace temperature/ time curve, which were shown in Figure 3. La curva real de temperatura/tiempo del horno y la curva estándar de temperatura/tiempo del horno, se muestran en la Figura 3.

b) The value of unexposed surface temperature rise was shown in Figure 4.

El valor del incremento de temperatura en la superficie no expuesta se mostró en la Figura 4.

The individual temperatures recorded on the unexposed surface of the specimen were shown in Table 1. Las temperaturas individuales registradas en la superficie no expuesta de la muestra se mostraron en la Tabla 1.

1.

A summary of the observations made on the general behavior of the specimen was given in Table 2.

Se proporciona un resumen de las observaciones realizadas sobre el comportamiento general de la muestra en la Tabla 2.

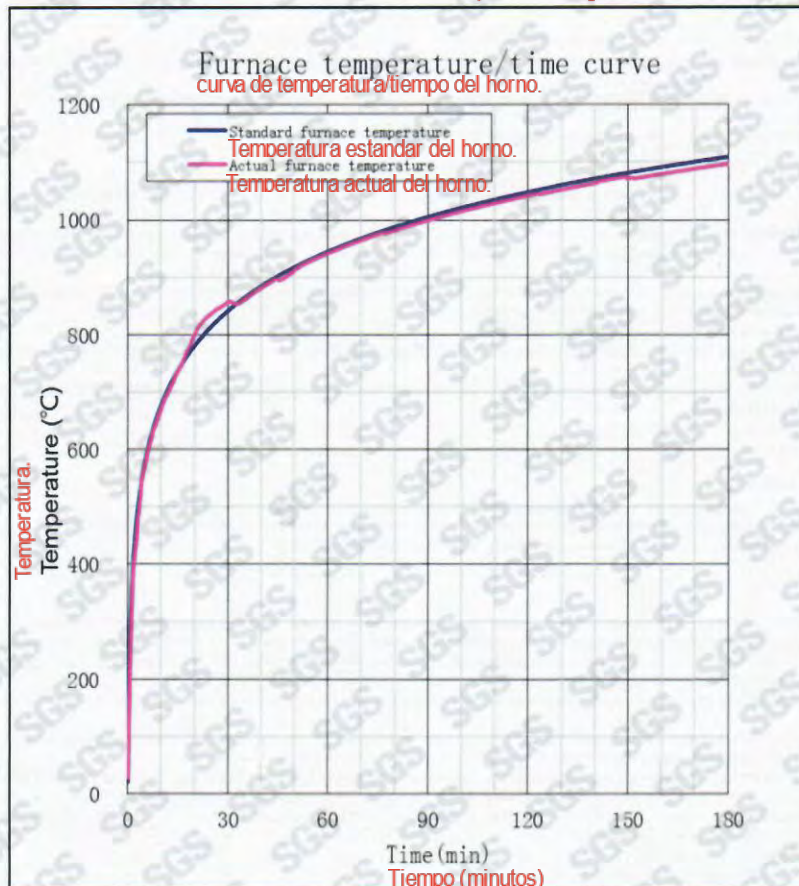


Figure 3 - Actual Mean Furnace Temperature/Time Curve and Standard Furnace Temperature/Time Curve

Figura 3 - Curva actual de temperatura/tiempo promedio del horno y curva de temperatura/tiempo estándar del horno.

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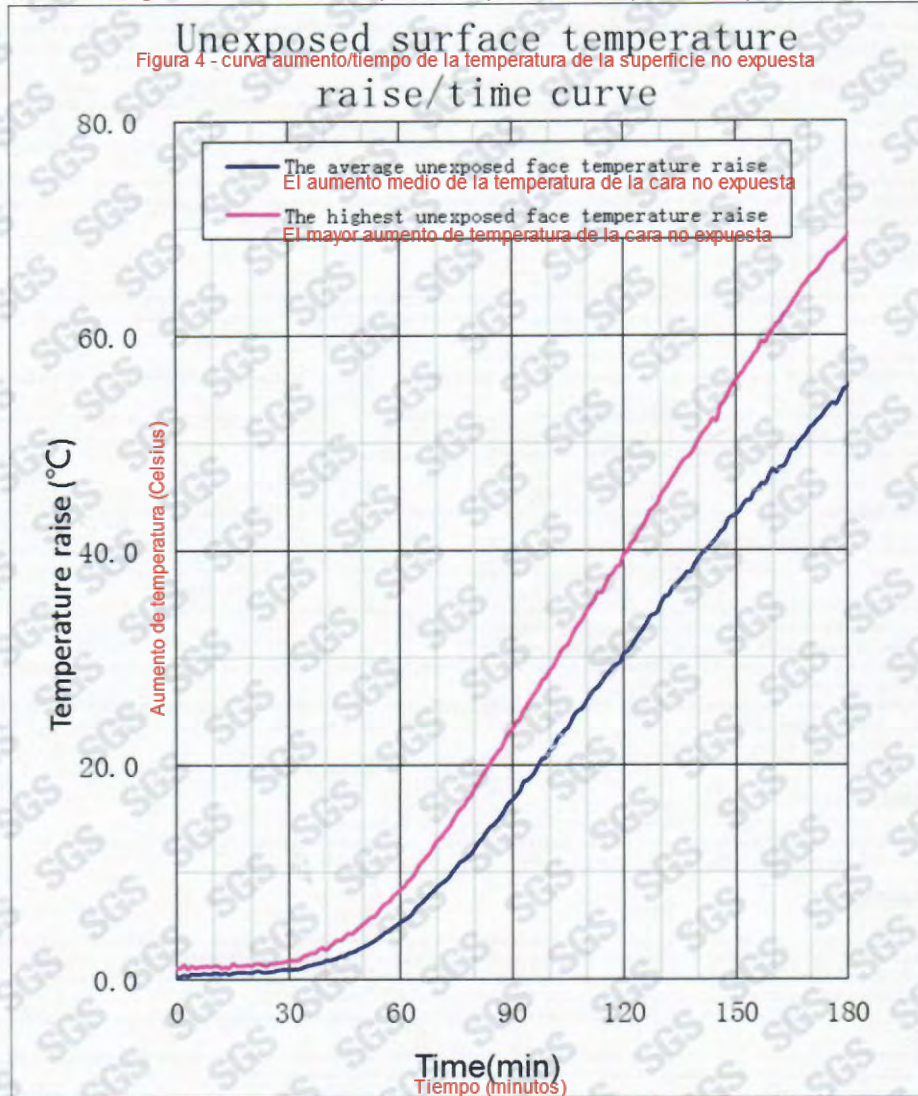


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Figure 4 –Unexposed surface temperature rise/time curve
 Figura 4 - curva aumento/tiempo de la temperatura de la superficie no expuesta



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Table 1 Individual Temperatures Recorded on the Unexposed Surface of the Specimen (unit: °C)
Tabla 1. Temperaturas individuales registradas en la superficie no expuesta de la muestra. (unidad grados celsius)

Time Tiempo (min)	Thermocouples / Temperatures Termopares/temperaturas								
	1	2	3	4	5	6	7	8	9
0	23.4	23.1	23.2	22.8	23.1	23.3	24.0	23.3	24.0
1	23.5	23.1	23.1	22.8	23.1	23.1	24.0	23.4	23.9
2	23.6	23.1	23.2	23.0	23.2	23.3	24.3	23.3	23.8
3	23.5	23.2	23.2	23.0	23.2	23.1	23.9	23.4	23.9
4	23.8	23.2	23.4	23.0	23.4	23.4	24.2	23.4	24.0
5	23.9	23.4	23.5	23.2	23.2	23.4	24.0	23.4	24.0
6	23.8	23.4	23.5	23.0	23.4	23.2	24.1	23.4	23.9
7	23.7	23.4	23.5	23.1	23.4	23.4	24.1	23.5	24.0
8	23.9	23.2	23.4	23.1	23.4	23.4	24.2	23.5	24.1
9	23.8	23.4	23.4	23.1	23.4	23.4	24.1	23.6	24.1
10	24.0	23.4	23.6	23.1	23.4	23.5	24.2	23.5	24.1
11	24.0	23.5	23.5	23.1	23.5	23.5	24.2	23.5	24.0
12	24.0	23.4	23.5	23.1	23.3	23.5	24.0	23.4	24.0
13	23.9	23.5	23.6	23.2	23.5	23.5	24.1	23.5	24.0
14	23.9	23.3	23.6	22.9	23.4	23.4	24.0	23.5	23.9
15	24.0	23.5	23.5	23.1	23.4	23.4	24.4	23.5	24.0
16	24.0	23.6	23.7	23.2	23.5	23.5	24.2	23.5	24.0
17	24.1	23.6	23.7	23.2	23.5	23.5	24.2	23.5	24.1
18	24.1	23.6	23.8	23.3	23.5	23.4	24.2	23.7	24.1
19	24.0	23.6	23.7	23.2	23.4	23.5	24.3	23.5	24.2
20	24.1	23.6	23.7	23.2	23.5	23.4	24.2	23.5	24.2
21	24.2	23.7	23.7	23.3	23.7	23.5	24.4	23.5	24.2
22	24.2	23.6	24.0	23.4	23.5	23.6	24.4	23.7	24.2
23	24.3	23.6	23.8	23.2	23.5	23.4	24.3	23.7	24.0
24	24.2	23.7	23.8	23.2	23.5	23.5	24.2	23.6	24.1
25	24.2	23.6	23.6	23.4	23.5	23.5	24.4	23.5	24.1
26	24.4	23.7	23.8	23.2	23.6	23.6	24.4	23.5	24.3

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Time Tiempo (min)	Thermocouples / Temperatures Termopares/temperaturas								
	1	2	3	4	5	6	7	8	9
27	24.5	23.9	24.0	23.5	23.6	23.7	24.4	23.9	24.2
28	24.5	23.9	24.0	23.5	23.7	23.7	24.5	23.5	24.2
29	24.6	24.0	24.1	23.5	23.8	23.7	24.5	23.7	24.2
30	24.7	24.0	24.1	23.5	23.7	23.8	24.4	23.8	24.2
31	24.7	24.1	24.1	23.7	23.6	23.7	24.4	23.8	24.2
32	24.7	24.2	24.2	23.6	23.7	23.8	24.4	23.8	24.2
33	24.8	24.2	24.1	23.7	23.8	23.8	24.4	23.9	24.2
34	25.1	24.4	24.2	23.8	24.0	24.0	24.5	23.9	24.2
35	25.2	24.6	24.4	24.0	24.0	24.0	24.8	23.9	24.2
36	25.4	24.7	24.5	24.2	24.1	24.1	24.6	24.0	24.2
37	25.4	24.8	24.7	24.2	24.1	24.2	24.8	24.0	24.4
38	25.7	25.0	24.7	24.3	24.2	24.3	24.9	24.1	24.5
39	25.9	25.1	24.8	24.3	24.4	24.4	24.8	24.3	24.7
40	25.7	25.3	25.0	24.5	24.6	24.5	25.0	24.2	24.7
41	26.0	25.5	25.0	24.6	24.5	24.7	24.8	24.2	24.4
42	26.3	25.5	25.0	24.8	24.6	24.7	25.1	24.5	24.4
43	26.6	25.9	25.3	24.8	24.7	24.8	25.1	24.6	24.9
44	26.6	26.0	25.4	25.0	24.9	25.1	25.1	24.7	25.0
45	26.9	26.2	25.4	25.2	24.7	25.2	25.3	24.8	25.0
46	27.2	26.5	25.6	25.3	25.1	25.4	25.6	24.9	25.1
47	27.2	26.7	25.8	25.5	25.3	25.6	25.3	25.0	25.1
48	27.5	26.8	25.8	25.7	25.4	25.8	25.4	25.2	25.2
49	27.8	27.2	26.1	25.8	25.7	26.0	25.6	25.2	25.3
50	28.1	27.7	26.3	26.1	25.8	26.1	25.7	25.4	25.4
51	28.4	27.9	26.5	26.4	25.7	26.5	25.7	25.6	25.5
52	28.7	28.2	26.7	26.7	26.0	26.5	25.9	25.7	25.7
53	28.8	28.6	27.0	26.8	26.2	26.8	26.0	26.0	25.7

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TEST REPORT

Informe de prueba

Número No. : GZIN170902787CCM-01

Fecha Date : Nov. 30, 2017

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Time Tiempo (min)	Thermocouples / Temperatures Termopares/temperaturas								
	1	2	3	4	5	6	7	8	9
54	29.2	29.0	27.2	27.2	26.5	27.1	26.1	26.1	26.0
55	29.7	29.4	27.5	27.5	26.7	27.4	26.3	26.3	26.0
56	30.0	29.8	27.8	27.8	27.1	27.7	26.4	26.5	26.1
57	30.2	30.1	27.8	28.1	27.2	28.1	26.4	26.8	26.2
58	30.7	30.6	28.1	28.5	27.5	28.3	26.7	26.8	26.4
59	31.0	30.9	28.5	28.7	27.7	28.6	26.8	27.1	26.6
60	31.3	31.2	28.8	29.1	27.9	28.7	27.1	27.2	26.6
61	31.6	31.6	29.0	29.3	28.1	29.2	27.0	27.5	26.8
62	32.1	32.0	29.1	29.7	28.3	29.5	27.1	27.7	26.8
63	32.3	32.4	29.6	29.9	28.6	29.7	27.4	27.9	27.0
64	32.9	32.9	30.0	30.5	29.0	30.3	28.0	28.2	27.4
65	33.3	33.6	30.4	30.8	29.5	30.9	28.1	28.5	27.7
66	33.6	34.0	30.8	31.2	29.8	31.1	28.2	28.8	27.9
67	34.0	34.4	31.0	31.7	30.1	31.5	28.7	29.1	28.1
68	34.4	34.8	31.5	32.2	30.5	31.9	28.8	29.5	28.1
69	34.8	35.4	31.9	32.5	30.8	32.3	28.7	29.8	28.5
70	35.3	35.9	32.2	32.9	31.1	32.7	29.3	30.1	28.7
71	35.6	36.2	32.6	33.3	31.3	33.2	29.2	30.4	28.7
72	36.2	36.7	33.0	33.6	31.7	33.3	29.2	30.7	28.7
73	36.5	37.1	33.1	34.0	31.9	33.9	29.5	31.0	29.1
74	36.9	37.7	33.6	34.5	32.5	34.5	30.0	31.5	29.8
75	37.4	38.3	34.0	34.9	33.0	34.8	30.5	31.8	30.0
76	37.8	38.8	34.6	35.6	33.5	35.3	30.6	32.2	30.1
77	38.4	39.1	34.8	35.9	33.6	35.7	30.5	32.4	30.1
78	38.8	39.7	35.1	36.2	34.0	36.0	30.7	32.7	29.8
79	39.1	40.1	35.4	36.6	34.3	36.5	30.7	33.0	30.2
80	39.5	40.8	35.8	37.2	34.7	37.2	31.2	33.4	30.8

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TEST REPORT

Informe de prueba

Número No. : GZIN170902787CCM-01

Fecha Date : Nov. 30, 2017

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Time Tiempo (min)	Thermocouples / Temperatures Termopares/temperaturas								
	1	2	3	4	5	6	7	8	9
81	40.0	41.4	36.5	37.6	35.2	37.6	32.0	33.8	31.8
82	40.7	42.0	36.9	38.3	35.6	38.1	31.9	34.5	31.4
83	41.2	42.5	37.4	38.8	36.0	38.8	32.3	34.7	31.5
84	41.5	43.1	38.0	39.4	36.6	39.1	32.7	35.2	32.4
85	41.9	43.6	38.1	39.9	36.9	39.6	32.5	35.5	32.2
86	42.5	44.1	38.8	40.1	37.3	40.1	32.6	35.9	32.2
87	43.0	44.5	39.1	40.7	37.7	40.6	33.0	36.3	32.5
88	43.4	45.3	39.7	41.4	38.1	41.2	33.7	36.7	33.0
89	43.9	45.9	40.4	41.8	38.7	41.8	34.3	37.2	33.6
90	44.2	46.3	40.8	42.4	39.1	42.4	33.8	37.5	33.3
91	44.9	46.9	41.2	42.7	39.4	42.9	34.5	37.8	33.9
92	45.2	47.2	41.6	43.2	39.8	43.4	34.7	38.4	33.9
93	45.8	48.0	42.2	43.9	40.6	44.2	36.0	38.8	35.0
94	46.2	48.5	42.7	44.4	41.1	44.5	35.2	39.4	34.6
95	46.6	49.1	43.1	44.8	41.4	44.9	35.2	39.5	34.8
96	47.0	49.6	43.4	45.2	41.9	45.4	35.7	40.1	35.0
97	47.3	50.1	43.9	45.8	42.3	46.1	37.0	40.5	35.8
98	47.9	50.8	44.6	46.4	43.0	46.6	37.2	41.3	36.3
99	48.3	51.1	44.9	46.9	43.4	46.9	36.4	41.4	35.6
100	49.1	51.7	45.4	47.3	44.1	47.5	37.3	41.6	35.8
101	49.1	52.1	45.8	47.8	44.2	48.0	37.5	42.1	36.7
102	49.8	52.8	46.5	48.4	45.0	48.8	38.4	42.8	37.3
103	50.2	53.5	47.2	49.1	45.5	49.4	37.7	43.5	37.2
104	50.6	53.9	47.5	49.5	46.0	49.9	38.3	43.9	37.4
105	50.9	54.2	47.7	49.8	46.4	50.2	38.5	44.3	37.8
106	51.5	54.9	48.3	50.4	46.9	50.9	39.5	44.6	37.6
107	52.0	55.6	49.1	51.1	47.5	51.4	40.0	45.2	38.3
108	52.4	56.1	49.4	51.6	47.9	52.0	39.6	45.7	38.1

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TEST REPORT

Informe de prueba

Número No. : GZIN170902787CCM-01

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Time Tiempo (min)	Thermocouples / Temperatures Termopares/temperaturas								
	1	2	3	4	5	6	7	8	9
109	52.6	56.6	49.7	52.0	48.0	52.3	39.8	46.0	38.5
110	53.1	57.3	50.2	52.4	48.6	52.8	40.9	46.5	39.2
111	53.7	57.8	50.9	52.9	49.2	53.5	41.2	46.8	39.5
112	54.1	58.3	51.3	53.4	49.8	54.1	41.3	47.2	39.4
113	54.6	59.0	51.8	53.9	50.1	54.3	41.2	47.7	39.7
114	54.7	59.0	52.1	54.3	50.6	54.9	41.6	48.0	39.8
115	55.0	59.7	52.7	54.7	51.0	55.5	42.3	48.3	40.2
116	55.7	60.5	53.0	55.4	51.6	56.1	42.1	49.0	40.0
117	56.0	60.8	53.4	55.6	51.8	56.3	43.3	49.0	40.7
118	56.4	61.4	53.8	56.1	52.3	56.9	42.7	49.5	40.7
119	56.9	61.6	53.8	56.5	52.5	57.2	42.8	49.8	40.6
120	57.4	62.6	54.7	57.2	53.5	57.9	43.6	50.3	41.8
121	57.6	62.9	55.0	57.6	53.8	58.3	43.2	50.7	41.4
122	58.0	63.6	55.4	58.0	54.1	58.8	44.0	51.0	42.0
123	58.6	64.0	56.2	58.6	54.4	59.3	44.5	51.4	42.0
124	59.0	64.7	56.6	59.1	55.2	59.9	44.9	51.7	42.2
125	59.3	65.2	57.2	59.5	55.5	60.4	45.4	52.6	43.7
126	59.8	65.8	57.7	60.2	56.3	60.9	45.7	53.2	44.3
127	60.3	66.6	58.4	60.6	57.0	61.5	46.7	53.8	44.6
128	60.7	66.9	58.7	61.0	57.4	61.7	46.3	54.2	43.8
129	61.1	67.3	59.1	61.5	57.6	62.1	46.0	54.5	43.7
130	61.7	68.1	59.7	61.9	58.4	63.0	47.6	55.1	45.6
131	62.5	68.6	60.5	62.6	59.3	63.3	47.8	55.9	46.0
132	62.8	69.1	60.9	63.0	59.8	63.8	46.7	56.3	45.1
133	63.2	69.7	61.4	63.6	60.2	64.2	48.0	56.6	46.2
134	63.7	70.2	61.8	64.1	60.8	64.6	47.7	57.1	45.7
135	64.1	70.8	62.2	64.4	61.0	64.9	48.2	57.5	46.2
136	64.4	71.3	62.6	64.9	61.4	65.5	48.4	57.9	45.8

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TEST REPORT

Informe de prueba

Número No. : GZIN170902787CCM-01

Fecha Date : Nov. 30, 2017

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Time Tiempo (min)	Thermocouples / Temperatures Termopares/temperaturas								
	1	2	3	4	5	6	7	8	9
137	64.8	71.6	62.9	65.5	61.8	66.0	48.9	58.3	46.8
138	65.2	71.9	63.3	65.8	62.0	66.2	47.9	58.6	46.0
139	65.3	72.5	63.7	66.1	62.2	66.9	49.9	58.8	48.0
140	65.8	73.2	64.2	66.7	63.0	67.3	50.2	59.6	48.6
141	66.6	73.8	64.9	67.0	63.7	67.7	50.4	60.3	49.0
142	66.7	74.2	65.2	67.7	64.2	68.1	50.1	60.5	47.6
143	67.0	74.6	65.6	68.0	64.6	68.5	50.1	60.9	47.4
144	67.4	75.2	66.1	68.3	64.8	68.8	50.9	61.3	48.6
145	68.0	75.0	66.7	69.0	65.4	69.4	50.4	61.5	48.3
146	68.4	76.4	67.1	69.4	66.1	69.9	51.2	62.1	48.8
147	68.6	76.8	67.4	69.8	66.6	70.4	50.9	62.7	49.8
148	69.4	77.5	68.4	70.3	67.0	70.8	52.8	63.3	50.2
149	69.8	78.2	68.6	70.8	67.6	71.3	52.4	63.8	49.9
150	70.2	78.7	69.1	71.2	68.0	71.6	51.7	64.1	49.9
151	70.6	79.2	69.6	71.6	68.4	72.1	51.5	64.6	49.8
152	71.2	79.6	70.0	72.1	68.7	72.5	52.8	65.0	50.6
153	71.7	80.2	70.6	72.7	69.2	72.9	52.8	65.4	50.6
154	71.8	80.6	70.9	73.0	69.3	73.3	52.0	65.7	50.6
155	72.3	81.2	71.4	73.4	69.8	73.7	53.9	66.3	52.0
156	72.6	81.6	71.7	73.9	70.4	74.3	53.1	67.0	51.6
157	73.3	82.4	72.3	74.3	71.3	74.6	53.6	67.6	52.3
158	73.6	82.3	72.7	74.7	71.0	75.0	52.4	67.6	51.3
159	73.9	83.0	72.9	75.1	71.7	75.4	54.5	68.0	52.7
160	74.4	83.5	73.5	75.5	72.1	76.0	55.6	68.7	53.1
161	74.4	84.0	73.7	76.1	72.5	76.3	52.7	68.8	51.9
162	74.9	84.3	73.7	76.4	72.6	76.7	54.3	69.0	53.2
163	75.4	84.9	74.4	76.9	72.9	76.9	53.0	69.6	52.3

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