Hilti CP648-E Firestop Endless Wrap Strips

Submission Folder

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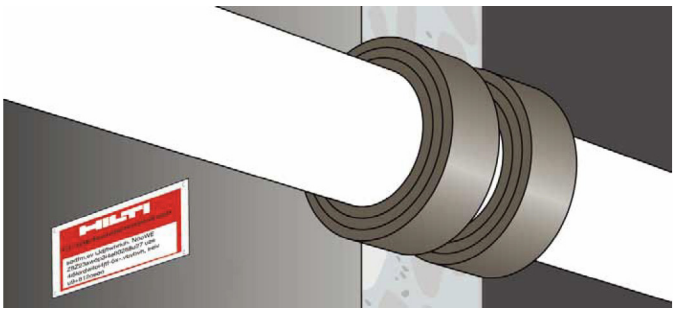
Hilti (HK) | askHilti 工程師技術支援平台 ask.hilti.com.hk | 香港客戶熱線 +852 8228 8118 澳門客戶熱線(免費) 00800 8228 8118 | 香港門市：大角咀洋松街1號形品星寓地下2號舖 澳門門市：澳門布魯塞爾街70號建興龍廣場地下W座地舖 | 電郵：hksales@hilti.com 傳真：+852 2954 1751

Firestop wrap strip CP 648-E



APPLICATIONS

- Combustible pipe penetrations

ADVANTAGES

- Quick and easy closure without tools
- Easy to cut
- Fast installation
- Highest flexibility

Acoustic | Siesmic | Low VOC | Mould & Mildew

Technical data	
Base materials	Concrete, Masonry, Drywall
Expansion temperature (approx.)	210 °C
Expansion ratio (unrestricted, up to)	1:19
Storage and transportation temperature range	-5 - 50 °C
Length	10 m
Colour	Grey, printed foil
Dimensions (LxWxH)	10000 x 45 x 5 mm

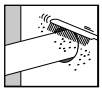
Application table

CP 648-E (Firestop Endless Wrap - 4.5 mm thick)

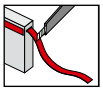
Pipe dimension (mm)	No. layers	Reference wrap length (cm)^^	No.of penetrations with a 10 m roll	Recommended drill hole X (mm)
20	1	7	142	37^
50	1	17	58	67^
63	1	21	47	77^
75	1	25	40	92^
90	2	64	15	112^
110	2	75.5	13	132^
125	2	85.5	11	152^
160	3	166	6	202^

^ or bigger ^^ The wrap lenght should

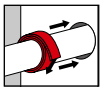
Application Procedure



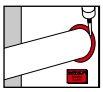
1. Clean the plastic pipe.



2. Cut CP 648-E to the correct length (see measurement table on product packaging for help).

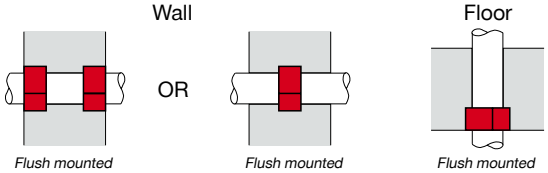


3. Wrap the CP 648-E around the pipe, fasten it with adhesive tape and push it into the annular space



4. Close remaining gap to ensure smoke and gas tight seal. Fasten installation plate if required.

Fixing Method



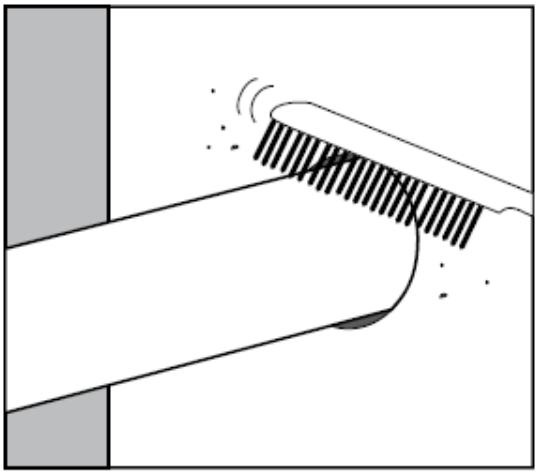
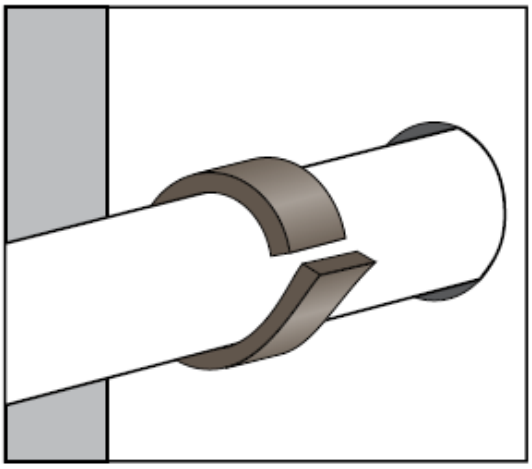
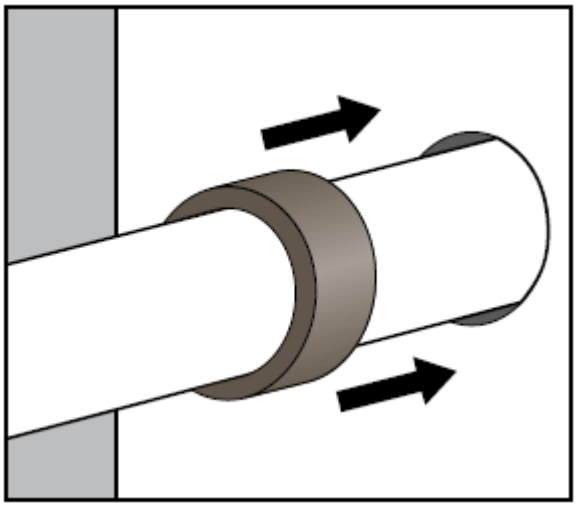
Flush mounted | Flush mounted | Flush mounted

Order Now

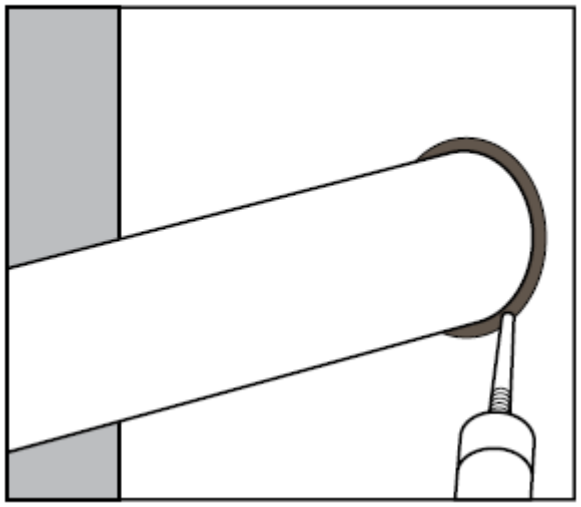
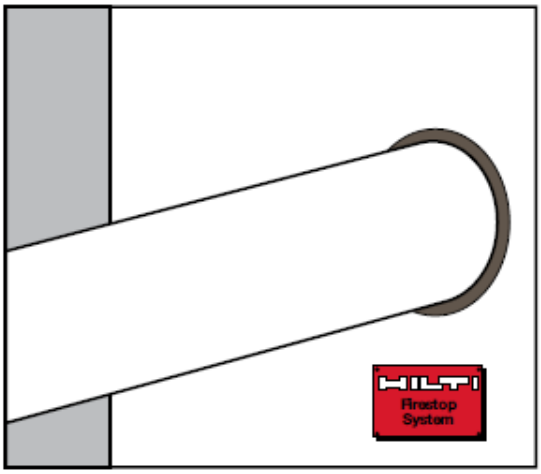
Ordering designation	Sales pack quantity	Item number
CP 648-E-W45/1.8”	1 pc	**304310**

Please visit Hilti website for the latest item numbers and related products

Subject: **Method Statement of CP 648.**
Material: CP 648-S or CP 648-E firestop wrap strip and CP606 / CP601S firestop sealant
Accessory: Nil

Setting Operation		
1	Clean the plastic or insulated pipe penetration. Expansion of the intumescent material during a fire closes the plastic pipe. Very dirty pipes (i.e. pipes with the remains of mortar) may lead to a delay in the closing action. Soiled plastic or insulated pipes should, therefore, be cleaned in the area where the CP 648−S / CP 648-E Firestop Wrap Strip is to be installed.	
2	Install the Wrap Strip. Use the CP 648-S / CP 648-E Firestop Wrap Strip corresponding to the diameter of the pipe to be installed. Wrap the CP 648-S / CP 648-E strip around the pipe and fasten it tightly using the integrated adhesive strip.	
3	Push the CP 648-S / CP 648-E Firestop Wrap Strip into the annular space.	

Hilti (Hong Kong) Ltd.
701-704 | Tower A | Manulife Financial Centre
223 Wai Yip Street | Kwun Tong
Kowloon | Hong Kong
P +852-8228 8118 I **F** +852-2954 1751
www.hilti.com.hk

4	Seal against smoke and gas. Seal the remaining gap with Hilti CP 606 / CP 601S sealant.	
5	For maintenance reasons, a penetration seal can be permanently marked with an identification plate and fastened in a visible position next to the seal.	

Safety precautions:

- Never use in highly corrosive surroundings or in outdoors.
- Keep out of reach of children
- Avoid prolonged and repeated contact with the skin
- Do not rub the eyes after contact with the hands

檢測報告

No. 2018-A60

試件名稱： CP 648 Firestop Wrap

報告發送致送檢單位：

送檢單位： Hilti (Hong Kong) Ltd.

(已取代原報告：No. 2005-FRT47)

複檢日期(第二次)： 2019 年 04 月 24 日
再次複檢日期： 2022 年 04 月 24 日

澳門大學

檢測報告

No: 2018-A60

試件名稱	Hilti Firestop Wrap CP 648
送檢單位名稱	Hilti (Hong Kong) Ltd.
試件製造商	Hilti
試件產地	德國
試件型號規格	密度：約 1.35g/cm^3 施工溫度：-5°C 至 40°C 安裝後適用溫度：-20°C 至 100°C 膨脹度：約 40 倍 膨脹溫度：高於 160°C
送樣日期	2005 年 12 月 27 日
送檢時附上報告	Warrington Fire Research Centre Ltd. 報告編號：WARRES NO.C132995
檢測項目	防火填充材料耐火性能
檢測依據	BS476- 20: 1987
檢測日期	2005 年 12 月 30 日
檢測結論	經檢驗，此防火帶的耐火隔熱性達到 13 分鐘，耐火完整性達到 245 分鐘。但本試件只適用於填充的用途，而不可作為一整幅間隔牆體使用。

檢測人員，

黃傑勇
實驗員

審核，

譚立武
澳門大學機電工程系教授
澳門發展及質量研究所理事會理事長

1 檢測目的

1.1 根據英國標準 BS476 第 20 部分：1987，測試 CP 648 防火帶之耐火性能。

2 引言

2.1 根據送檢單位的要求，防火帶之耐火測試需滿足英國標準 BS476 第 20 部份：1987 之要求。

2.2 試件由送檢單位於 2005 年 12 月 27 日安裝， 並於 2005 年 12 月 30 日進行測試。

2.3 試件之向火面及背火面由送檢單位指定。

3 試件構造

3.1 試件由防火帶及 PVC 喉管等組成。試件一由 CP648-S 160/6"防火帶及 ϕ160mm 的 PVC 喉管組成，試件二由 CP648-S 50/1.5"防火帶及ϕ42mm 的 PVC 喉管組成，試件之外觀及試件組成部分可參考送檢單位所提供之圖 1 至圖 2。詳細圖則及試件構造可參照附錄 A。

3.2 本報告所繪製之圖則及試件組成部份是根據送檢單位所提供的資料而作。試件之厚度、外觀及組成部份已由本實驗室檢測員檢查。

3.3 試件由送檢單位送樣並安裝於檢測框上進行測試，該檢測框由本實驗室提供。

3.4 試件在檢測前幾天內安裝完畢。

4 測試設備及程序

4.1 測試設備按照英國標準 BS476 第 20 部份：1987 的要求設置。

4.2 爐體內部之平均溫度值由平均分佈於爐內的熱電偶取得，根據英國標準 BS476：第 20 部分：1987 所指定之溫度時間關係而操控升溫。溫度時間記錄圖見附錄 B 之圖 5。

4.3 爐體內設有壓力計以監察爐體壓力。

4.4 試件背火面設有 8 個熱電偶以作監察溫度之用，熱電偶分佈位置附錄 A 之圖 3 及圖 4。試件背火面所有熱電偶均用作判斷試件的耐火隔熱性。

4.5 測試過程中，棉墊及縫隙測量探棒用作評估試件的耐火完整性。

4.6 測試過程中，應記錄試件的變形情況和試件出現全部或部分毀壞時的時間。試件背火面如有火焰並持續 10 秒或以上，以及有煙散發出的情況也應記錄。

4.7 試件背火面及試件向火面於測試前後需拍照記錄。測試過程中，需拍照及用攝錄機記錄試件背火面情況以作日後評估之用。

5 測試數據及資料

5.1 測試過程所記錄之數據可參考附錄 B，記錄內容如下：

5.1.1 實際爐溫按照英國標準 BS476：第 20 部分：1987 所指定溫度時間關係圖。

5.1.2 由熱電偶所記錄試件背火面的溫度。

5.2 在測試過程中，試件的實驗狀況已詳細記錄於附錄 C 中以供參考。

5.3 有關試件圖片，見附錄 D。

5.4 測試開始時周圍環境温度為 19°C。

5.5 在送檢單位的同意下在 245 分鐘終止本試件整個測試。

6 耐火極限之評定條件

6.1 按英國標準 BS476 第 20 部份：1987 之標準，試件之耐火表現將會根據以下之條件作評定：

6.1.1 耐火完整性 – 當測試過程中，i) 在試件之背火面進行棉墊點燃測試；ii) 如試件背火面出現較大的裂縫，用 6mm 及 25mm 直徑之量測棒來量測裂縫之寬和深度。如棉墊沒有被試件背火面之高溫點燃及試件背火面未出現能讓量測棒插入貫通之裂縫，試件之耐火完整性才被判斷為合格。

6.1.2 耐火隔熱性 – 試件背火面最高平均溫度升幅不得超過 140°C 及單點溫度升幅不得超過 180°C。

7 結論

7.1 根據 BS476 英國標準第 20 部分對防火填充材料所制定的準則 - 耐火完整性及耐火隔熱性，評估試件的耐火性能測試結果如下：

耐火隔熱性	**13 分鐘**
耐火完整性	**245 分鐘**

8 限制說明

8.1 本測試結果僅反映特定測試條件下，建築構件之試驗情況。此測試結果並非判斷試件在實際應用時防火特性的唯一標準，同時亦不反映試樣在實際火場上所能表現的防火性能。

8.2 本試驗結果只反映與報告相同之物料、結構、厚度及安裝方法之系統，如將此試驗結果應用於試件組合型式不同的情況時，應按照實際設計而作出相應之評估。

8.3 檢測報告僅對送檢試件負責。

附錄 A

試件構造說明及附圖

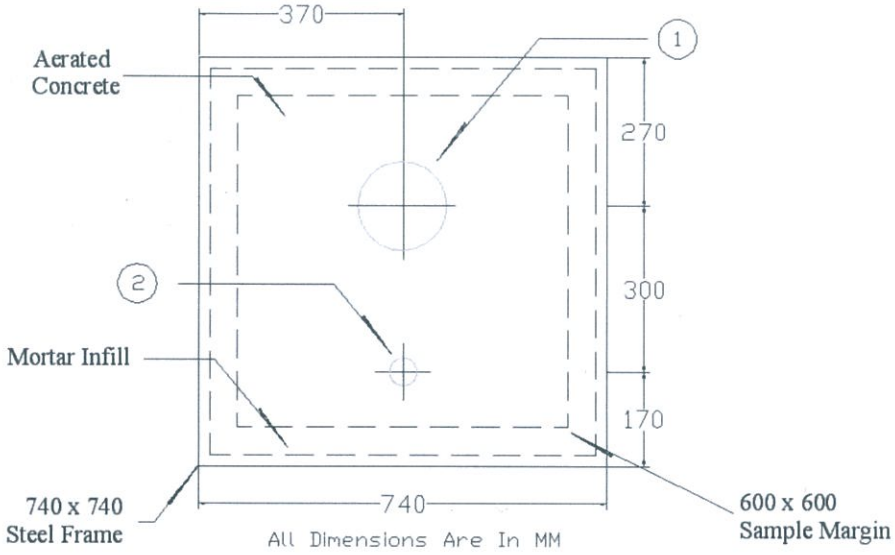


圖 1　測試試件之正視圖

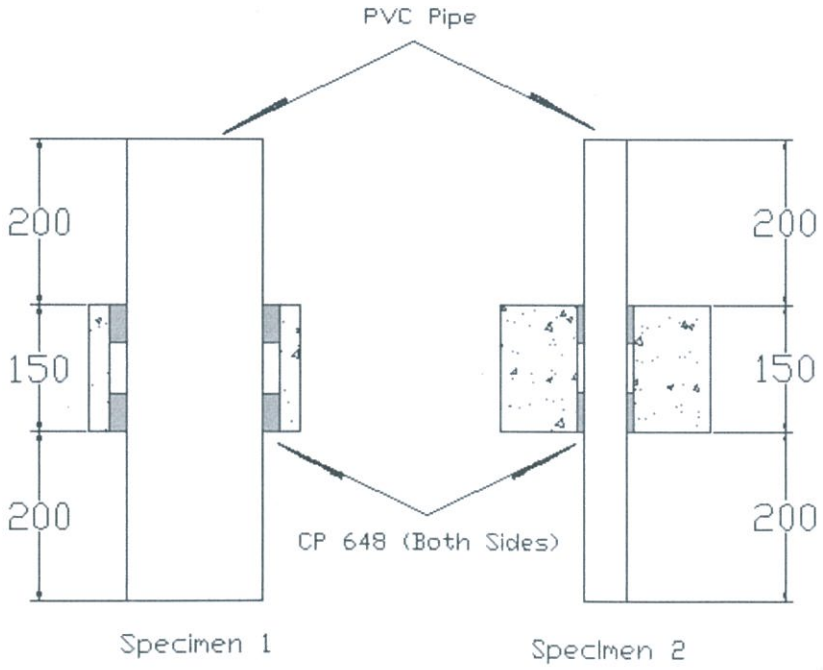
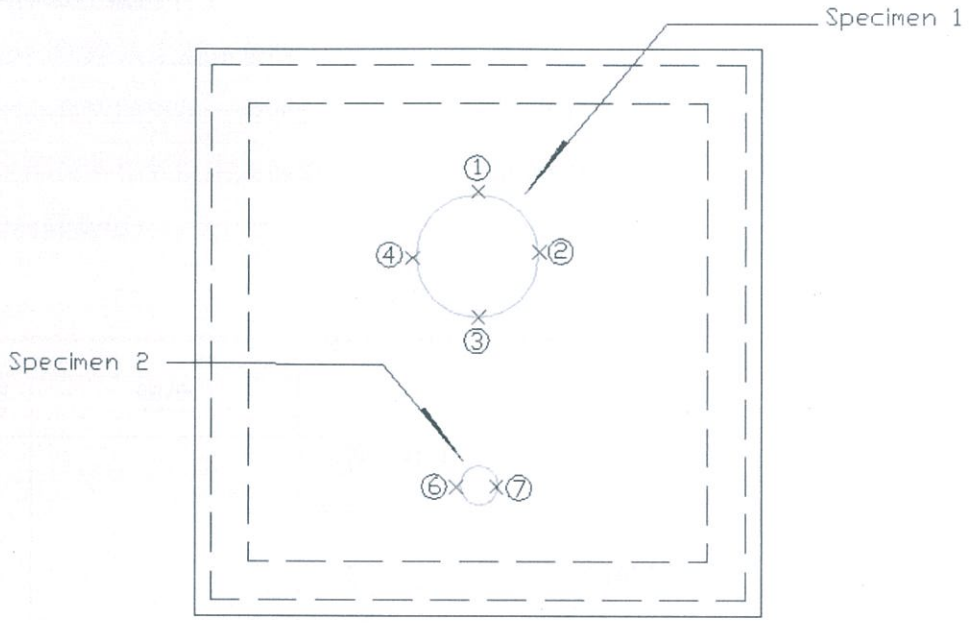
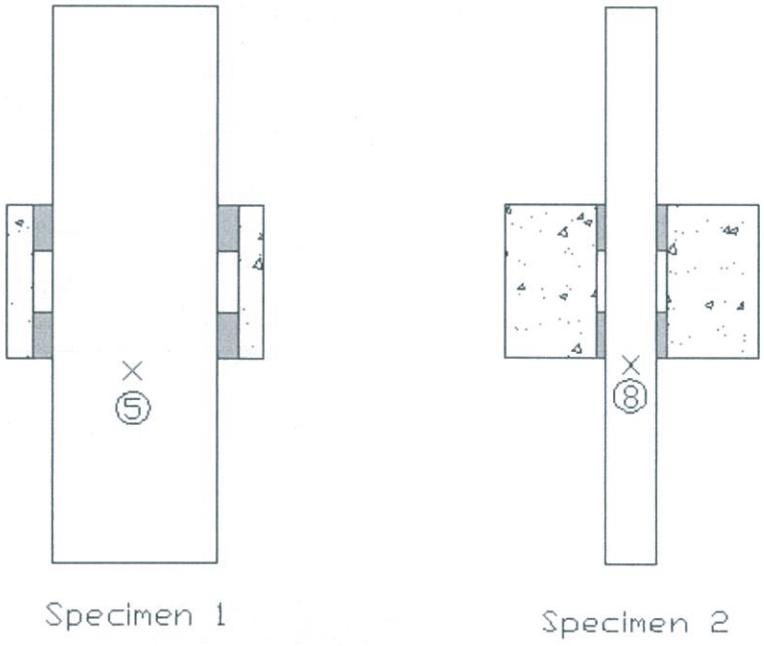


圖 2　測試試件之截面圖



X: 熱電偶

圖 3　測試試件之熱電偶位置圖一



X: 熱電偶

圖 4　測試試件之熱電偶位置圖二

試件組件資料

(參照附錄 A 之圖 1 至圖 2)

(除非有特別指定，否則全部數值都為理論值)

(全部資料和數值由送檢單位 Hilti (Hong Kong) Ltd.提供，本實驗室並沒有求證有關數值)

表 1　試件組件資料列表

項目	組件	描述
1.	Firestop Wrap	品牌：Hilti 型號：CP 648 測試尺寸 1：CP648-S 160/6” 測試尺寸 2：CP648-S 50/1.5” 密度：約 1.35g/cm^3 施工溫度：-5°C 至 40°C 安裝後適用溫度：-20°C 至 100°C 膨脹度：約 40 倍 膨脹溫度：高於 160°C 基礎材質：混凝土、石膏板、磚石
2.	Plastic pipe	材質：PVC 直徑：ϕ42mm and ϕ160mm

附錄 B

測試數據

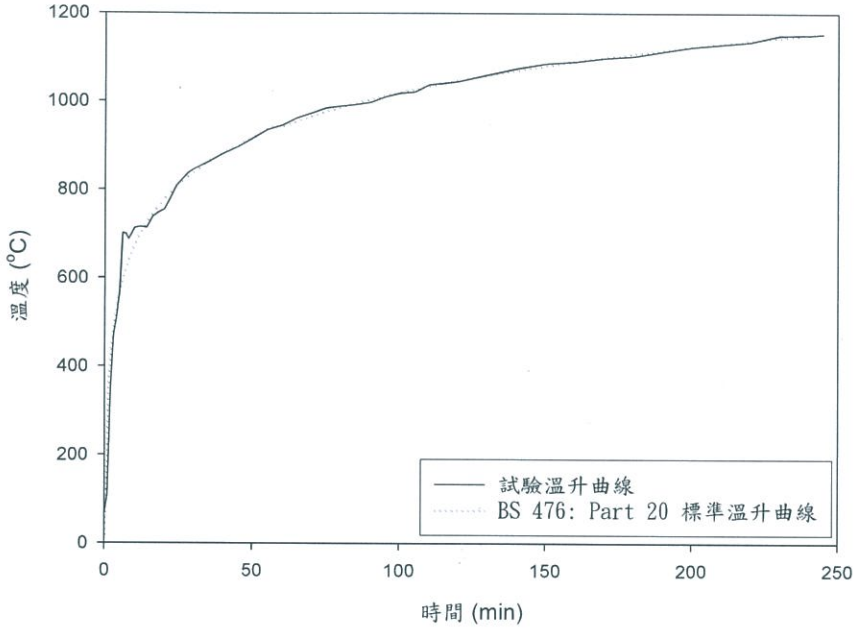


圖 5　平均爐溫與標準(溫度/時間)曲線圖

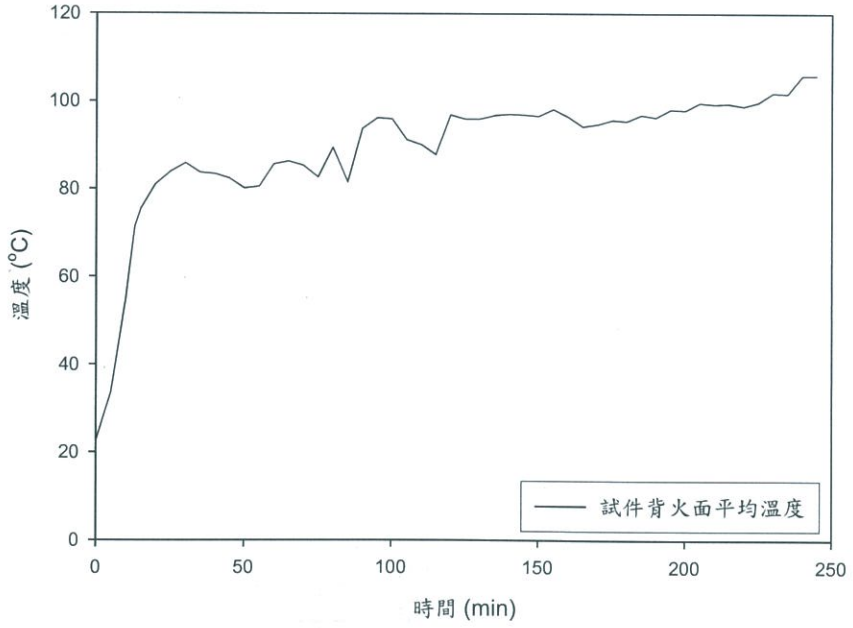


圖 6　試件背火面平均溫度/時間曲線圖

表 2　平均爐溫與標準溫度之比較

時間 (min)	標準爐內溫度 (°C)	爐內平均溫度 (°C)	標準允許公差 (%)	實際允差 (%)
0	20.00	66.43		
1	349.21	108.23		
2	444.50	349.97		
3	502.29	470.70		
4	543.89	509.04		
5	576.41	568.51		
6	603.12	701.04		
7	625.78	699.49		
8	645.46	686.96		
9	662.85	699.75		
10	678.43	712.80	±15	2.57
12	705.44	715.29		
14	728.31	712.97		
16	748.15	737.35		
18	765.67	747.60		
20	781.35	754.67		
22	795.55	780.21		
24	808.52	806.95		
26	820.45	822.77		
28	831.50	837.17		
30	841.80	845.78	±10	0.18
35	864.80	862.25		
40	884.74	880.79		
45	902.34	896.58		
50	918.08	915.97		
55	942.83	935.52		
60	945.34	945.50		
65	957.31	962.42		
70	968.39	973.60		
75	978.71	985.11		
80	988.37	989.21		
85	997.44	992.56		
90	1005.99	998.25		
95	1014.08	1010.34		
100	1021.75	1018.65		
105	1029.06	1021.25		
110	1036.02	1037.78		
115	1042.67	1040.94		
120	1049.04	1045.23		
130	1061.02	1059.96		

140	1072.11	1074.51		
150	1082.44	1085.42		
160	1092.10	1090.18		
170	1101.18	1098.01		
180	1109.74	1102.33		
190	1117.84	1113.41		
200	1125.52	1123.42		
210	1132.82	1129.18		
220	1139.79	1135.06		
230	1146.44	1149.92		
240	1152.82	1151.33	±5	2.86
245	1156.52	1153.12		

表 3　試件背火面單點及平均溫度

時間 (min)	單點熱電偶溫度 (°C)								平均溫度 (°C)
	1	2	3	4	5	6	7	8	
0	25.76	25.67	20.18	24.23	26.65	19.34	18.98	19.59	22.55
5	43.00	30.87	20.49	27.69	72.19	21.28	20.71	32.40	33.58
10	82.56	46.89	24.44	36.81	145.26	28.71	27.03	48.09	54.97
13	116.41	68.75	28.95	47.49	**202.51 ***	30.46	28.76	47.16	71.31
15	127.35	76.53	29.09	57.92	210.05	30.33	28.62	42.98	75.36
20	145.75	94.83	30.23	70.06	210.24	30.04	29.12	38.82	81.14
25	151.26	102.76	36.36	79.04	200.65	30.97	30.42	40.04	83.94
30	154.59	106.53	39.57	84.75	195.15	32.51	31.86	41.92	85.86
35	147.41	102.73	40.06	89.21	176.06	35.20	34.37	44.77	83.73
40	143.77	98.98	51.57	93.07	159.51	37.46	36.31	46.63	83.41
45	134.33	103.98	57.39	91.04	145.37	40.39	38.42	48.09	82.38
50	129.82	84.09	61.61	89.06	145.20	42.50	39.75	49.26	80.16
55	129.31	78.06	62.40	86.46	147.50	46.90	43.42	50.76	80.60
60	137.72	101.58	61.49	76.53	152.81	52.01	50.13	53.35	85.70
65	134.80	100.48	61.17	71.87	144.53	59.27	61.35	57.36	86.35
70	131.56	99.38	59.81	62.66	137.72	60.30	73.68	58.07	85.40
75	130.32	90.03	59.69	53.66	134.10	57.96	76.41	59.64	82.73
80	132.74	88.37	60.15	102.64	135.36	63.39	75.24	57.91	89.48
85	138.28	86.15	61.25	26.13	142.18	59.84	77.68	61.49	81.63
90	138.40	88.12	61.04	111.74	143.40	59.12	85.14	63.57	93.82
95	139.29	89.59	69.12	114.09	149.56	66.64	75.89	65.70	96.24
100	141.80	90.89	67.00	112.34	150.94	61.75	76.94	66.60	96.03
105	140.26	88.06	66.62	111.80	149.15	68.22	37.80	68.39	91.29
110	141.22	85.56	68.22	107.96	146.04	62.76	41.10	68.15	90.13
115	134.45	85.62	69.10	107.93	140.29	66.40	31.62	67.87	87.91
120	139.55	102.82	68.41	103.28	137.93	65.39	85.33	72.62	96.92
125	132.56	104.68	70.12	103.49	128.75	71.76	86.82	69.71	95.99
130	136.43	104.19	68.31	101.03	127.24	68.37	85.60	76.50	95.96
135	137.69	103.49	73.88	101.58	127.32	68.72	86.25	75.48	96.80
140	139.05	105.98	71.02	99.63	130.35	68.00	86.95	75.91	97.11
145	140.75	104.92	67.84	100.30	131.94	69.01	86.47	74.36	96.95
150	137.64	100.12	74.64	100.42	128.66	72.55	85.66	73.38	96.63
155	142.38	94.98	68.64	108.32	133.18	76.81	83.65	77.66	98.20
160	143.40	96.95	68.41	102.27	131.26	70.08	83.46	76.24	96.51
165	143.80	93.75	73.18	102.43	130.61	71.55	60.15	78.55	94.25
170	143.77	91.29	75.20	99.81	130.35	73.34	66.86	77.46	94.76
175	143.22	90.55	72.23	103.22	130.35	77.16	70.02	79.03	95.72
180	144.88	92.95	69.41	101.12	129.31	77.22	68.72	80.15	95.47
185	145.40	90.98	71.75	104.01	128.21	78.14	76.63	79.71	96.85

190	142.96	91.41	69.68	102.64	126.94	79.23	77.58	80.26	96.34
195	151.37	88.15	59.90	110.24	134.39	80.12	78.66	81.79	98.08
200	153.39	83.84	56.41	115.15	136.87	82.33	75.34	80.33	97.96
205	154.85	88.28	60.21	116.92	136.96	83.46	74.29	81.88	99.61
210	150.51	93.60	62.81	114.27	131.47	84.57	75.64	82.04	99.36
215	151.35	91.66	62.97	116.80	130.14	82.82	76.32	83.51	99.45
220	150.63	90.12	62.06	116.98	127.27	85.01	75.44	83.79	98.91
225	151.00	101.03	63.66	114.93	124.77	85.75	73.23	84.09	99.81
230	153.47	100.54	62.96	118.61	127.50	88.35	80.08	83.89	101.93
235	152.04	98.73	64.12	118.73	126.82	89.89	79.78	83.85	101.75
240	155.45	96.30	90.68	122.19	131.59	88.73	77.81	84.11	105.86

*** 試件背火面熱電偶單點溫度超溫**

附錄 C

觀察情況

表 4　　測試過程中，觀察試件情況如下

時間 (小時:分鐘)	**事件**
-0:01	攝錄機、監察和操控儀器啓動。
0:00	開啓石油氣閥，測試開始。周圍環境温度為 19°C。
0:13	**試件背火面熱電偶 TC5 溫度達到 203°C，試件之耐火隔熱性失效。**
0:40	試件背火面防火帶開始膨脹。
0:42	試件背火面防火帶及 PVC 管接縫位置有少量煙氣溢出。
1:00	試件之耐火完整性仍能符合標準。
1:15	於 0:42 描述之試件背火面冒煙情況仍然持續。
1:45	在試件背火面進行棉墊測試 -- 棉墊沒有被點燃。
2:00	試件之耐火完整性仍能符合標準。
2:15	試件背火面防火帶持續膨脹及開始變黃。
2:35	在試件背火面進行棉墊測試 -- 棉墊沒有被點燃。
3:00	試件之耐火完整性仍能符合標準。
3:15	於 1:15 描述之試件背火面冒煙情況仍然持續。
3:30	於 3:15 描述之試件背火面冒煙情況減少。
4:00	試件之耐火完整性仍能符合標準。
4:05	送檢單位同意情況下，測試結束。
備註	*試件背火面結構仍完整(見圖 20)*

附錄 D

圖片

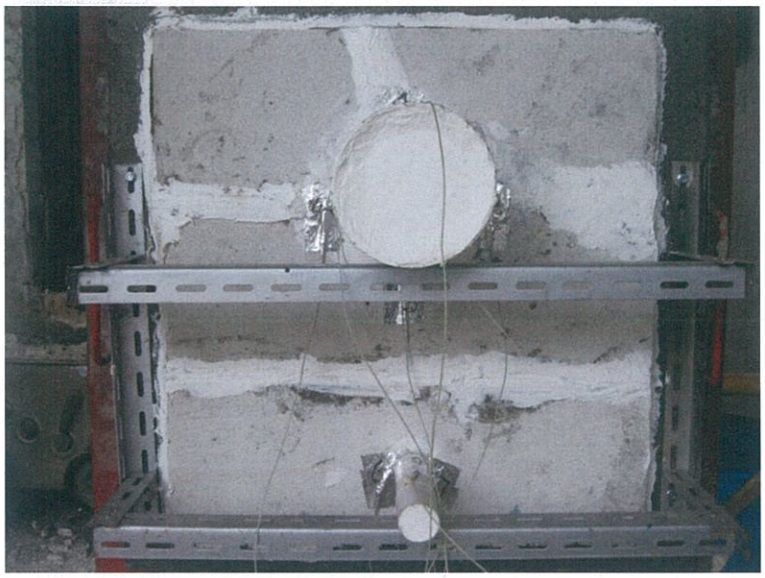


圖 7　測試前試件背火面

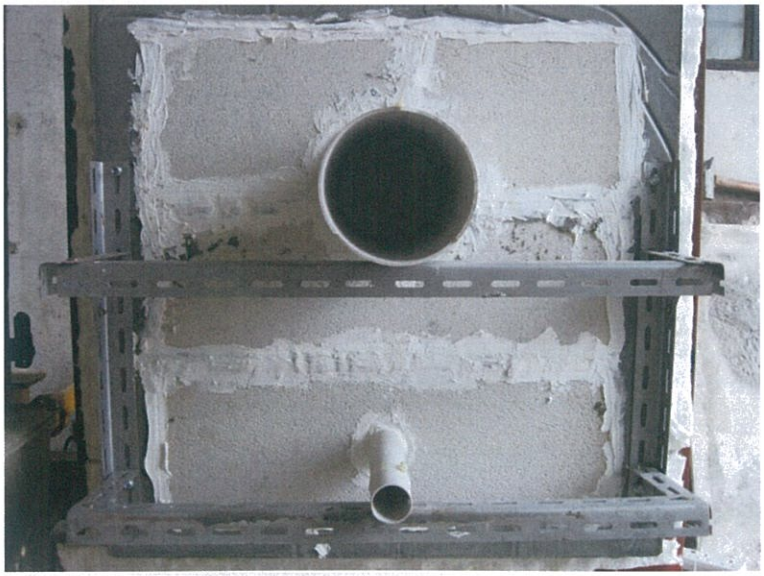


圖 8　測試前試件向火面

圖 9　熱電偶位置分佈圖一

圖 10　熱電偶位置分佈圖二

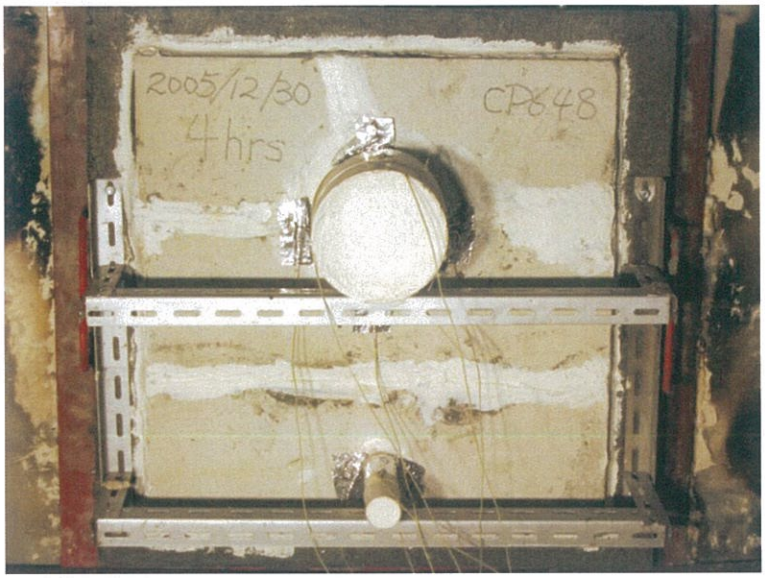


圖 11　測試 30min 時試件背火面

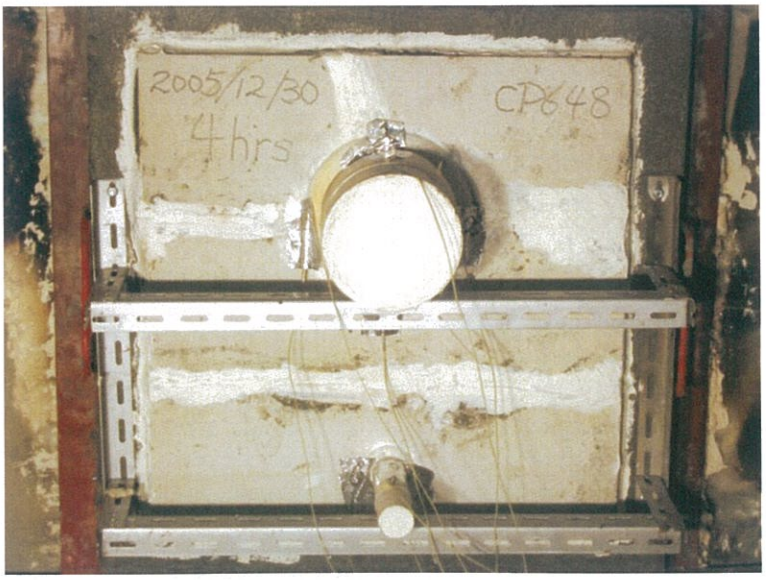


圖 12　測試 60min 時試件背火面

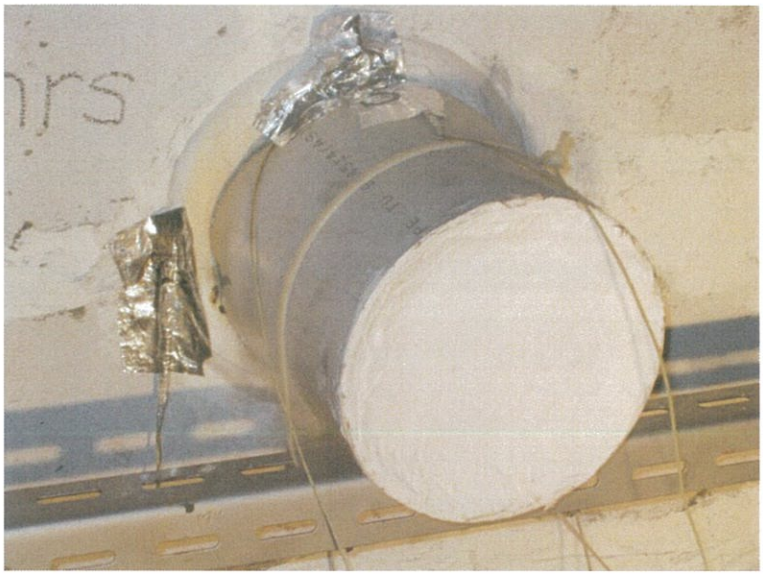


圖 13　測試 60min 時試件背火面防火帶的膨脹情況

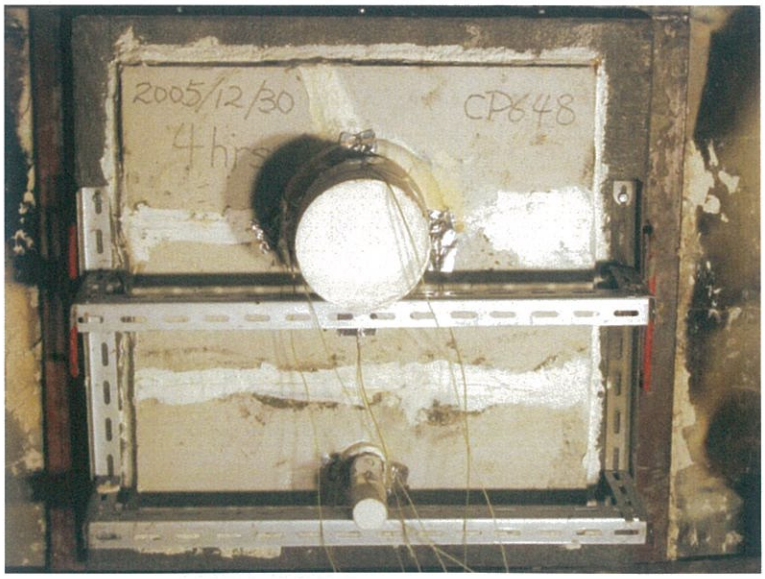


圖 14　測試 90min 時試件背火面

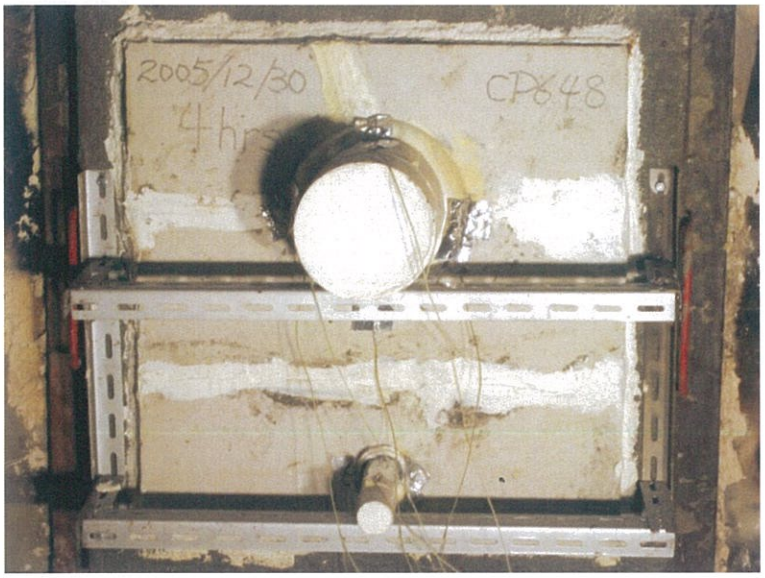


圖 15　測試 120min 時試件背火面

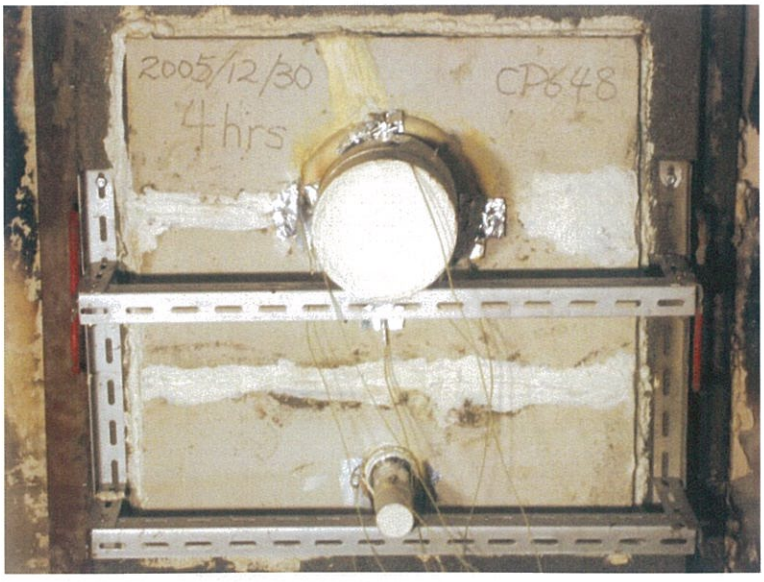


圖 16　測試 150min 時試件背火面

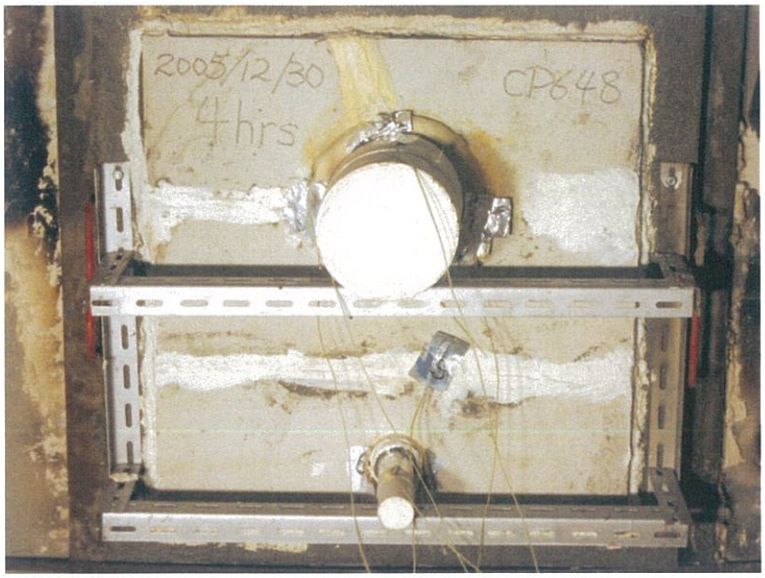


圖 17　測試 180min 時試件背火面

圖 18　測試 180min 時試件背火面防火帶的膨脹情況

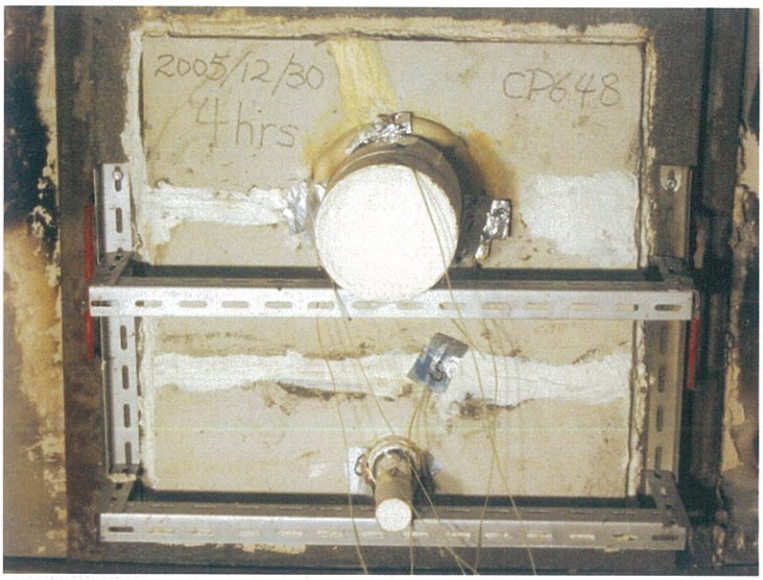


圖 19　　測試 210min 時試件背火面

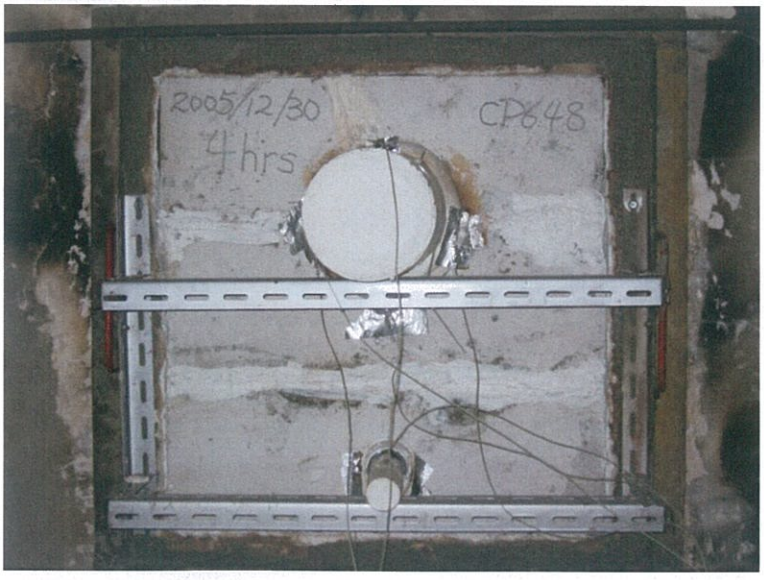


圖 20　　測試 240min 時試件背火面

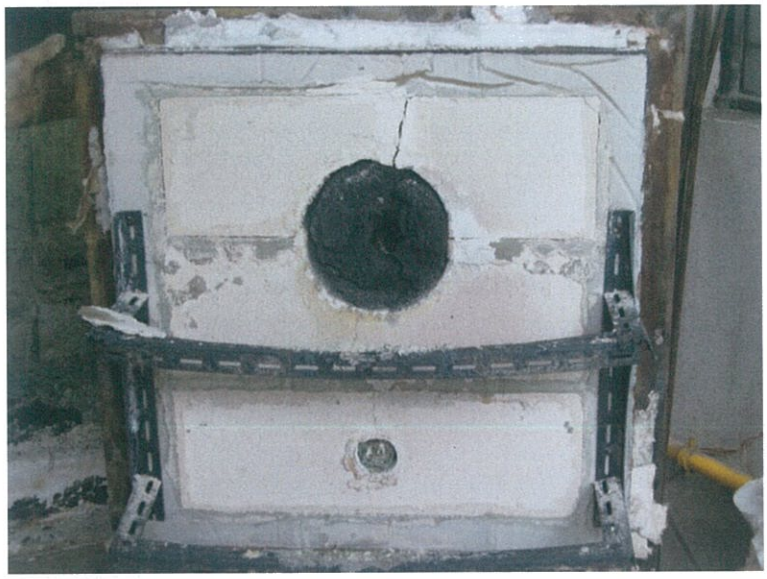


圖 21　　測試後試件向火面

圖 22　測試後試件一向火面的詳細狀況圖

圖 23　測試後試件二向火面的詳細狀況圖

----------報告結束----------

LEGEND
Technical Services, Inc.
www.legend-group.com
88 Empire Drive • St. Paul, Minnesota • 55103
(651) 642-1150 • fax (651) 642-1239

VOC Content Test Certificate

April 12, 2011

Supplier: Hilti Entwicklungsgesellschaft mbH
BU Chemicals
Hiltistrasse 6
86916 Kaufering
GERMANY

Sample Description: Hilti CP648 Sealant Strip

Date Tested: April 4, 2011

Test Method: SCAQMD method 304-91 “Determination of Volatile Organic Compounds (VOC) in Various Materials” as referenced by South Coast Air Quality Management District (SCAQMD) Rule 1168. The values also comply with the requirements of EPA test method #24.

Test Data:

Specification	Product
LEED 2009 (LEED 3.0) **LEED 2.2** IEQ-4.1: Low-Emitting Materials – Adhesives and Sealants	**Hilti** **CP648 Sealant Strip**
Green Building Council of Australia Green Star Office Design 3.0, IEQ-13 Green Star Office Design 2.0, IEQ-13 Green Star Office Interiors 1.1, IEQ-11	
Architectural Sealant; **VOC Limit: 250 g/L**	**Product contains: 3.1 g/L of VOC**

William Welbes
Vice President of Laboratory Operations

Tom Barrett
Senior Chemist

澳門特別行政區政府
Governo da Região Administrativa Especial de Macau
消 防 局
Corpo de Bombeiros

審閱 /Visto
於 Em 14/02/2006
技術廳廳長
O Chefe do D.T.

意 見 書

事由： 要求審批"HILTI" 喜利得防火延燒產品 – CP 648 Firestop Wrap

參件： 進入編號 1103 (25/01/2006)
喜利得(香港)有限公司來函編號：M-AL_LE07_06(18/01/2006)
意見書編號 245/DT/2006 (09/02/2006)

Ø1. 上述公司交來以下 CP 648 Firestop Wrap 的資料：
a. 澳門大學按照 BS476 Part20：1987 檢驗依據測試標準發出的 CP 648 Firestop Wrap (防火帶)檢驗報告複印本(No2005-FRT47)；
b. Warrington 防火研究中心發出的測試報告複印本，編號爲 WARRES No.C132995；
c. Underwriters Laboratories(UL Online Certifications Directory)XHHW.R13240 Fill, Void or Cavity Materials；

Ø2. 根據上述的資料分析後，CP 648 Firestop Wrap 於試驗結果中顯示具 CRF13 能力。然而，如將此組件應用於不同組合形式使用時，應按照實際用途而作出相應評估；

Ø3. 上述物料使用在落實個案時，應徵詢權限部門(土地工務運輸局)之意見。

二零零六年二月十三日，於技術廳研究暨試驗科

研究暨試驗科科長

黃勁松

黃勁松
副一等消防區長

\\Cb214\06 年.sol 資料\物料-器材認可\HILTI\CP 648\CP 648 Firestop Wrap 出街.doc

FM APPROVED

Certificate of Compliance

WALL & FLOOR PENETRATION FIRE STOP

This certificate is issued for the following material:

CP601S; CP604; CP606; CP611A; CP612; CP617; CP618; CP620; CP636; CP644; CP643N; CP648E; CP648S; CP658T; CP670; CP672; CP673; CP675T; CP679A; CP680-M; CP680-P; FS-ONE; CP657; AND FS657

Manufactured by:

Hilti Entwicklungsegesellschaft GmbH
Hiltistrabe 6
86916 Kaufering, Germany

FM Approvals Class 4990

Approval Identification: Various Approval Granted: Various

Said Approval is subject to satisfactory field performance, continuing follow-up Facilities and Procedures Audits, and strict conformity to the constructions as shown in the Approval Guide, a publication of FM Approvals.

For more than 160 years FM Approvals has partnered with business and industry to reduce property losses.

FM Approvals℠

Member of the FM Global Group

Robert L. Martell
Director, Asst. Vice President
July 16, 2007

Certificate of Compliance

Certificate Number **20060214-R13240L**
Report Reference **2006 February 14**
Issue Date **2006 February 14**

Underwriters Laboratories Inc.®

Issued to: **Hilti, Inc.**
5400 S 122ND East Ave
Tulsa, OK 74146 USA

This is to certify that representative samples of **Fill, Void or Cavity Materials**
CP 648E, CP 648S

Have been investigated by Underwriters Laboratories Inc.® in accordance with the Standard(s) indicated on this Certificate.

Standard(s) for Safety: ANSI/UL 1479, CAN/ULC-S115-05

Additional Information: CP 648E and CP648S (Product number may be suffixed to denote size) Wrap Strip for use in Through-Penetration Firestop Systems as currently described in the UL Fire Resistance Directory.

Only those products bearing the UL Classification Mark should be considered as being covered by UL's Classification and Follow-Up Service.

The UL Classification Mark includes: UL in a circle symbol: with the word "CLASSIFIED" (as shown); a control number (may be alphanumeric) assigned by UL; a statement to indicate the extent of UL's evaluation of the product; and, the product category name (product identity) as indicated in the appropriate UL Directory.

Look for the UL Classification Mark on the product

Issued by:
Mona Couloute
Underwriters Laboratories Inc.

Reviewed by:
Christopher Johnson
Underwriters Laboratories Inc.

Attn. : To whom it may concern

Date : 26 September 2023
Ref. : 083/FP/DY/23

Subject : Country of Origin- Hilti CP648-E Firestop Endless Wrap

Dear Sir / Madam,

Enclosed please find the information of Hilti CP648-E Firestop Endless Wrap

Brand Name : Hilti

Model Name : Hilti CP648-E Firestop Endless Wrap

Manufacturer : Hilti Corporation

Address of Manufacturer : FL-9494, Principality of Liechtenstein.

Manufacturer Contact Person : Dennis Yeung

Supplier : Hilti (Hong Kong) Ltd

Address of Supplier : 701-704, 7/F, Tower A, Manulife Financial Centre,
223 Wai Yip Street, Kwun Tong, Kowloon, Hong Kong

Supplier Contact Person : Dennis Yeung (+852 9723 4621)

Country of Origin : Germany

Should you have further questions, please do not hesitate to contact our Technical Representatives, Customer Service Hotline at 8228-8118, or email us at hksales@hilti.com.

Yours faithfully,

Dennis Yeung
Head of Product Leadership Strategy, F&P

Hilti (Hong Kong) Ltd.
701-704 | Tower A | Manulife Financial Centre
223 Wai Yip Street | Kwun Tong
Kowloon | Hong Kong
P +852-8228 8118 I **F** +852-2954 1751
www.hilti.com.hk

July 30, 2014

To Whom It May Concern:

Re: Hilti CP 648 E & S Firestop Wrap Strips – LEED Info.

- The Hilti CP 648 E & S Firestop Wrap Strips is manufactured in Germany.
- The package of Hilti CP 648 E & S Firestop Wrap Strips can be completely recycled.
- There is no recycled content in Hilti CP 648 E & S Firestop Wrap Strips and it cannot be recycled.
- The Hilti CP 648 E & S Firestop Wrap Strips does not share any rapidly renewable materials.
- The VOC content of Hilti CP 648 E & S Firestop Wrap Strips is 3.1 g/l.

If you would like to know more about Hilti solutions for LEED buildings or should you have any further question please feel free to contact me at my email or mobile number as shown below.

Sincerely,

HILTI (HONG KONG) LTD. MKT

Andrew Lau

Product Manager - Firestop

Hilti (Hong Kong) Limited

Email: andrew.lau@hilti.com

Mobile: (852) 9843-6291

Hilti (Hong Kong) Ltd.
701-704 | Tower A | Manulife Financial Centre
223 Wai Yip Street | Kwun Tong

Kowloon | Hong Kong

P +852-8228 8118 I **F** +852-2954 1751

www.hilti.com.hk

To whom it may concern

Date: 1st Mar 2018

Dear Sir / Madam,

Subject: Hilti Firestop Products non-CFC and Ozone Confirmation

Referring to your enquiry about the captioned subject, please be advised that:

Hilti firestop products, CP648-E Firestop Endless Wrap & CP648-S Firestop Single Wrap (Insulated Pipe Penetration) are free of CFC, HCFC nor other ozone depletion elements.

CFC, HCFC and ozone depletion elements were not used during the product process neither.

Should you have further questions, please do not hesitate to contact our Technical Representatives or Customer Service Hotline at 8228-8118.

Yours sincerely,

Dorothy Wai
Product Manger

Hilti (Hong Kong) Ltd.
701-704 & 708A&B | Tower A | Manulife Financial Centre
223 Wai Yip Street | Kwun Tong
Kowloon | Hong Kong
P +852-8228 8118 I F +852-2954 1751
www.hilti.com.hk

Material Information Statement

Articles

According to Regulation (EC) 1907/2006, Article 32
Revision: 07.04.2020 Version: 18

1 Identification of the articles and of the company undertaking

1.1 Product identifier

Trade name:

- Firestop Bandage CFS-B / CP 646
- Firestop Back Pan Strip CFS-BPS
- Firestop Block CFS-BL / CFS-BL P
- Firestop Board CP 675
- Firestop Boot CFS-BO
- Firestop Box Insert
- Firestop Cable Collar CFS-CC / CFS-RCC / CFS-RCC EXT
- Firestop Cable Module CFS-T
- Firestop Cast-in device CP 680 / CP 681 / CFS-CID /
- CFS-CID MD P/M
- Firestop Coated Board CFS-CT B / CP670 / CP673 / CP676
- Firestop Collar CFS-C / CFS-C P
- Firestop Collar CP 643 / CP 644
- Firestop Composite Sheet CFS-COS
- Firestop Cord CFS-CO
- Firestop Cushion CP 651N
- Firestop Drop-In Device CFS-DID
- Firestop Edge of Slab QuickSeal CFS-EOS QS
- Firestop Endless Collar CFS-C EL
- Firestop Filler Module CFS-T FB
- Firestop Gangplate CFS-SL GP
- Firestop Module Box CFS-MB / CP 657
- Firestop Plug CFS-PL / CP 658
- Firestop Plug Seal CFS-T RR / CFS-T RRS
- Firestop Retrofit Sleeve CFS-SL RK
- Firestop Sleeve CP 645
- Firestop Sleeve Kit CFS-SL SK
- Firestop Speed Sleeve CFS-SL / CFS-SL GA / CP 653
- Firestop Top Track Seal CFS-TTS
- Firestop Top Track Seal CFS-TTS MD
- Firestop Top Track Cover CFS-TTS MD
- Firestop Top Track Plug CFS-TTS MD
- Firestop Top Track Seal CFS-TTS 212
- Firestop Top Track Seal CFS-TTS R
- Firestop Wedge Seal CFS-T WD120
- Firestop Wrap Strip CFS-W EL / SG / P / CP 648
- Foil Tapes CS-FT
- Intumescent façade cavity closer CP674
- Joint Sealing Tapes CS-JST
- Mineral Wool
- Mineral Wool Boards
- Multifunctional Tapes CS-MFT
- Pre-coated Mineral Wool Boards
- Smoke & Acoustic Track Seal CS-TTS SA
- Speed Plug CP 777
- Speed Strip CP 767

1.2 Application of the listed articles

Construction industry.

Refer to Hilti product literature, technical data sheets, 3rd party published listings and national approvals for specific application information. For more details, please contact your local Hilti organization through http://www.hilti.group

1.3 Manufacturer / Supplier

Hilti AG
Feldkircherstr. 100
FL-9494 Schaan
Liechtenstein

Customer Service
Phone +423 (0)844 84 84 85
Fax +423 (0)844 84 84 86

2 Other information

A Safety Data Sheet is not required due to the classification of these products as “articles” according to Regulation (EC) No. 1907/2006 of 18 December 2006 (EU) / 29CFR 1910.1200 (U.S.A.). Consequently, these products are exempted from CLP / OSHA Labeling and SDS requirements.

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Informing department:
chemicals.hse@hilti.com

Hilti CP 648-E Firestop Endless Wrap Strips Job Reference

Year	Project Name	Customer Name	Project type
2020	68 LEE NAM RD	CHOI SUM WATER PIPE SERVICE CO LTD	Residential
2020	TKO LOHAS PARK PH10	YUEN CHEONG ENGINEERING CO LTD	Residential
2020	CASTLE PEAK RD, AREA 48 (547)	YUEN CHEONG ENGINEERING CO LTD	Residential
2020	TAI WAI STATION NW RES	KAI CHUEN ENGINEERING (H.K.) CO LTD	Residential
2020	35-41 WANG LUNG ST, TSUEN WAN	CHIT TAT ELECTRICAL ENGINEERING LTD	Industrial
2020	New - Office - (KCTL 517) 83 Tai Lin Pai Road, Kwai Chung	SHUN HING E & M ENGINEERING LTD	Office
2020	VEHICLE EXAM CENTRE	MEW FOOK KEE AIR CONDITIONING	Industrial
2020	7 MUK TAI ST, KAI TAK 1K3 (6565)	MAJESTIC PLUMBING ENGINEERS LTD	Residential
2020	166 CASTLE PEAK RD - TAI LAM, TMTL 523	CHUN LEE ENGINEERING CO LTD	Residential
2020	KAI TAK AREA 1L1 (6564)	PAK SHING PLUMBING & ENGINEERING	Residential
2021	6-8 LAI YING ST, NKIL 6549	SHUN CHEONG BUILDING SERVICES	Residential
2021	YUEN LONG STATION YLTL 510	SANFIELD (MANAGEMENT) LIMITED	Residential
2021	SIU HONG, AREA 54 DD 132 TMTL 483	RIDGID PLUMBING LIMITED	Residential
2021	HING WAH ST WEST LOT 6550 HOTEL	MING KEE ENGINEERING CO	Hospitality
2021	KAI TAK AREA 4B, SITE 2, NKIL 6575	CHITSON CONSTRUCTION ENGINEERING	Residential
2021	WONG CHUK HANG STATION PH2 (SITE B)	SHUN CHEONG ELECTRICAL ENGINEERING	Residential
2021	CASTLE PEAK RD, AREA 48 (547)	YUEN CHEONG ENGINEERING CO LTD	Residential
2021	New - Residential - Kau To Area 56A (STTL 579), Lai Ping Road, Sha	YUEN CHEONG ENGINEERING CO LTD	Residential
2021	1-11 AU PUI WAN ST, FO TAN	YUEN CHEONG ENGINEERING CO LTD	Residential
2021	KAI TAK AREA 1L2 (6563)	`	Residential
2022	SIU HONG, AREA 54 DD 132 TMTL 483	RIDGID PLUMBING LIMITED	Residential
2022	HING WAH ST WEST LOT 6550 HOTEL	MING KEE ENGINEERING CO	Hospitality
2022	KAI TAK AREA 4B, SITE 2, NKIL 6575	CHITSON CONSTRUCTION ENGINEERING	Residential
2022	KAI TAK AREA 4B, SITE 1, NKIL 6576	YUEN CHEONG ENGINEERING CO LTD	Residential
2022	KAI TAK AREA 1F SITE 2, NKIL 6556	ATAL BUILDING SERVICES ENGINEERING	Office
2022	SIN FAT RD, KWUN TONG NKIL 6584	MAJESTIC PLUMBING ENGINEERS LTD	Residential
2022	KAI TAK AREA 4C, SITE 2, NKIL 6552	CHIT TAT ELECTRICAL ENGINEERING LTD	Residential
2022	KWUN CHUI RD, AREA 56, TMTL 520	AIRES ENGINEERING COMPANY LIMITED	Residential
2022	91 KING LAM ST, NKIL 6505	WING FAT PLUMBING LIMITED	Office
2022	TKO LOHAS PARK PH11 (SITE C2)	CHUN LEE ENGINEERING CO LTD	Residential
2023	KAI TAK AREA 4C, SITE 1, NKIL 6553	CHIT TAT ELECTRICAL ENGINEERING LTD	Residential
2023	WONG CHUK HANG STATION PH4 (SITE D)	PYROFOE ENGINEERS LTD	Residential
2023	TKO LOHAS PARK PH11 (SITE C2)	CHUN LEE ENGINEERING CO LTD	Residential
2023	KAI TAK AREA 4A, SITE 2, NKIL 6554	MAJESTIC ENGINEERING CO LTD	Residential
2023	LUNG CHEUNG RD, NKIL 6579	PAK SHING PLUMBING & ENGINEERING	Residential
2023	KAI TAK AREA 4A, SITE 1, NKIL 6577	EVER GAIN AIR CONDITION ENGINEERING	Residential
2023	KAI TAK AREA 4C, SITE 2, NKIL 6552	MAJESTIC ENGINEERING CO LTD	Residential
2023	KAI TAK AREA 4B, SITE 1, NKIL 6576	YUEN CHEONG ENGINEERING CO LTD	Residential
2023	QUEEN MARY HOSPITAL PH1 (SS F501)	INNOTEC ENGINEERING LIMITED	Health
2023	YIN PING RD, TAI WO PING (6542)	WONG PO KEE LIMITED	Residential
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