

Hilti CP636 Firestop Mortar

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Firestop mortar CP 636



APPLICATIONS

- Permanent firestopping of cables, cable trays, and non-combustible pipes in medium to large wall and floor openings
- Single, multiple and mixed penetrations
- Medium to large multiple penetrations in concrete and masonry in combination with other products
- Lift door frame

ADVANTAGES

- Excellent application characteristics



Acoustic



Seismic



Low VOC



Mould & Mildew

Technical data

Base materials	Concrete, Masonry
Approx. mix ratio	2.5 : 1 (mortar to water by weight)
Working time (approx.)	45 min
Cured density - min.	700 kg/m ³
Max. compressive strength after 28 days	2.9 N/mm ²
Application temperature range	5 - 80 °C
Temperature resistance range	-10 - 80 °C
Storage and transportation temperature range	5 - 30 °C
Shelf life¹⁾	12 Months
Colour	Grey

¹⁾ at 77°F/25°C and 50% relative humidity; from date of manufacture

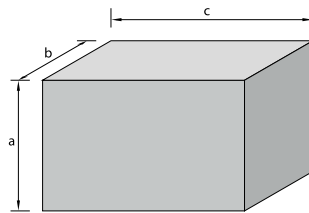
Consumption Guide

20 kg bags yield 22.2 litres

a = opening depth in cm

b = opening length in cm

c = opening width in cm



Blank Opening

$$\text{Number of bags required} = \frac{a \times b \times c}{22,000}$$

e.g. 100 mm thick floor with 1 metre x 1 metre opening:

$$\text{Therefore number of bags required} = \frac{10 \times 100 \times 100}{22,000} = 5 \text{ bags}$$

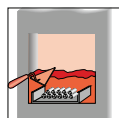
Application Procedure



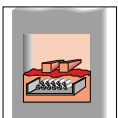
1. Clean opening, moisten surfaces



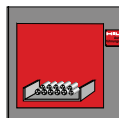
2. Mix CP 636 mortar with 3:1 ratio (by adding mortar to water)



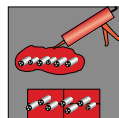
3. Put mortar into place



4. Optional: add CP 651 for future cable changes



5. Fasten installation plate in place (if required)



6. Re-installation: lay cables and close remaining opening



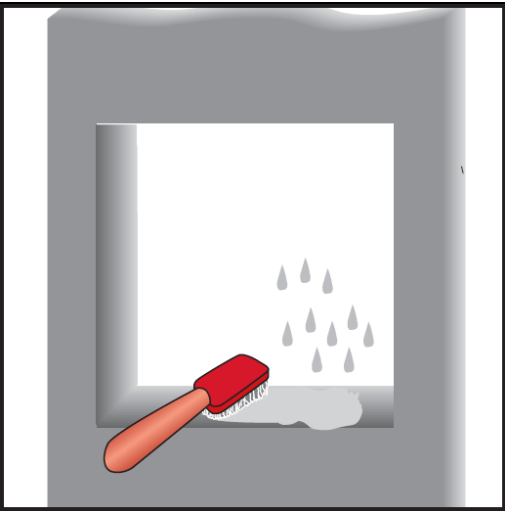
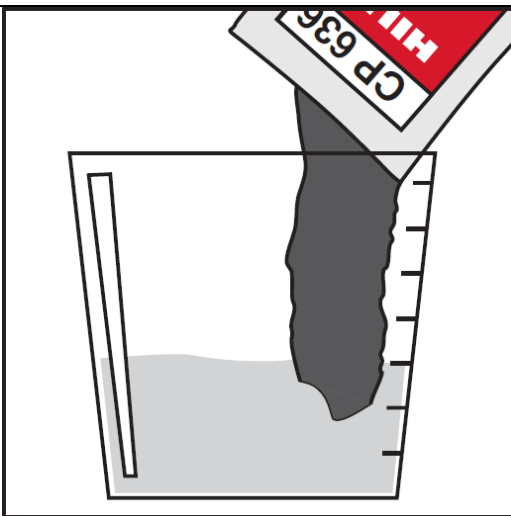
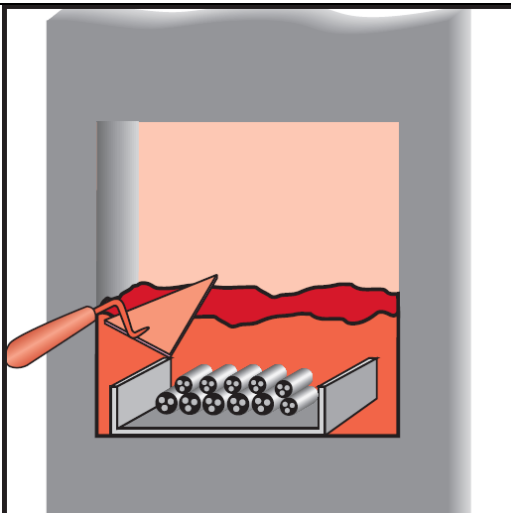
Order Now

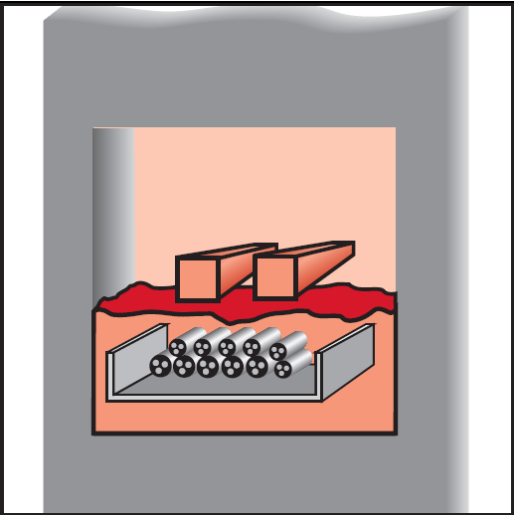
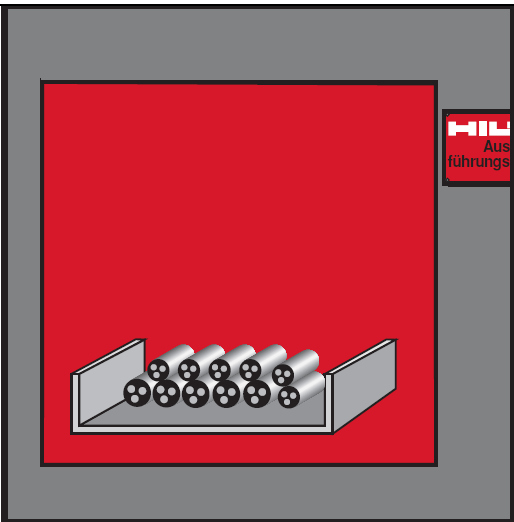


Ordering designation	Weight	Sales pack quantity	Item number
CP 636 20KG	20 kg	1 pc	334897

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

Subject: Method Statement of CP 636
Material: CP 636 Firestop mortar
Accessory: Nil

Setting Operation		
1	Clean and premoisten the surfaces. Cables and cable supporting structures must be installed in compliance with local building and electrical standards.	
2	Add mortar to water in a ratio of about 3:1 by volume (mortar to water). Stir the mixture thoroughly with, for example, a Hilti TE-MP/ TE-18M paddle. The mix ratio of water to CP 636 determines the desired consistency. Do not use any other binders or additives/ aggregates	
3	<u>Method 1</u> : Apply mixed mortar in the opening using a trowel or a pump and compact it. Make sure all gaps and spaces are completely filled and closed. <u>Method 2</u> : The penetration sealing system shall be constructed on 50 mm thick of mineral wool with 35mm thick Hilti CP 636 Fire Prevention Mortar on both sides.	

4	<p>CP 611A can be used in conjunction with mortar. In such case, apply CP 611A to the cables over a width of approx. 30mm and 5mm thick. Fill the gap between cables with CP 611A. Application of the mortar can be continued immediately after CP 611A has been applied.</p>	
5	<p>For maintenance reasons, a penetration seal could be permanently marked with an identification plate. In such a case, mark the identification plate and fasten it in a visible position next to the seal.</p>	

Safety precautions:

- Keep it out of the reach of children



澳門發展及質量研究所
Instituto para o Desenvolvimento e Qualidade, Macau
Institute for the Development and Quality, Macau

檢測報告

No. 2025-FRT055

試件名稱： Hilti Firestop Mortar CP636

報告發送致送檢單位：

送檢單位： 喜利得(香港)有限公司 (HILTI (HONG KONG) LIMITED)

報告日期： 2025 年 06 月 09 日

複檢日期： 2028 年 06 月 09 日



檢測報告

No. 2025-FRT055

1 引言

依據歐洲標準 BS EN 13501-2 : 2016 《建築產品及建築構件的防火性能分級 – 第 2 部分：使用防火性能測試數據進行分級（不包括通風設施）》，對喜利得(香港)有限公司 (HILTI (HONG KONG) LIMITED)送檢的滲透密封件之耐火性能進行分級。按送檢單位要求，滲透密封件之耐火性能需要滿足 BS EN 13501-2 : 2016 的 EI 120 等級要求。

2 試件資料

試件名稱	Hilti Firestop Mortar CP636
送檢單位名稱	喜利得(香港)有限公司 (HILTI (HONG KONG) LIMITED)
試件製造商	Hilti Gesellschaft mit beschränkter Haftung Industriegesellschaft für Befestigungstechnik
試件產地	德國

測試試件為一個電線槽及電線通過的滲透密封件。試件資料在澳門發展及質量研究所發出的檢測報告編號：TEED-2025-FRT-055 內有詳細的描述。

3 檢測報告

依據以下檢測報告的測試結果，對滲透密封件“Hilti Firestop Mortar CP636”的耐火性能進行分級：

檢測報告編號	TEED-2025-FRT-055
檢測日期	2025 年 05 月 17 日
報告日期	2025 年 06 月 09 日



4 測試結果

4.1 檢測標準：歐洲標準 BS EN 1366-3：2021《服務設施的防火性能測試 - 第3部分：滲透密封件》及 BS EN 1363-1：2020《防火性能測試（一般原則）》。

4.2 檢測結果如下：

耐火完整性 (E)：	持續火焰	120 分鐘 (未失效)
	縫隙測量	120 分鐘 (未失效)
	點燃棉墊	120 分鐘 (未失效)
耐火隔熱性 (I)：	密封件最高溫度	120 分鐘 (未失效)
	密封件接縫最高溫度	120 分鐘 (未失效)

5 性能分級

依據 BS EN 13501-2：2016 的條款 7.5，對滲透密封件“Hilti Firestop Mortar CP636”的耐火性能進行分級，判定其耐火性能：滿足 BS EN 13501-2：2016 的 EI 120 等級要求。

6 限制說明

本報告並不代表產品的型式認可或認證。

編寫，

批准，

黃傑勇工程師
澳門發展及質量研究所

譚立武教授
澳門發展及質量研究所



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Institute for the Development and Quality, Macau

檢測報告

TEED-2025-FRT-055

試件名稱： Hilti Firestop Mortar CP636

報告發送致送檢單位：

送檢單位： 喜利得(香港)有限公司 (HILTI (HONG KONG)
LIMITED)

澳門布魯塞爾街 70 號建興龍廣場地下 W 舖

報告日期： 2025 年 06 月 09 日

澳門發展及質量研究所





關注事項

1. 檢測報告未加蓋檢測單位“檢測專用章”無效；
2. 檢測報告無報告編寫員，審核人，批准人簽名無效；
3. 報告塗改無效；
4. 未經本實驗室書面同意，不得部分複製檢測報告(完整複製除外)；
5. 複印檢測報告未重新加蓋“檢測專用章”無效；
6. 檢測報告僅對送檢試件負責；
7. 對檢測報告若有異議，應於收到報告之日起十五日內向本實驗室提出；
8. 有關試件的相關信息由送檢單位提供，本實驗室並沒有求證相關信息及並不負責。

地址：澳門氹仔徐日昇寅公馬路澳門發展及質量研究所

查詢電話：00853-28371008

投訴電話：00853-28371008

電子郵箱：contract@idq.org.mo

網址：http://www.idq.org.mo

傳真：00853-28356162

郵編：999078





檢測報告

試件名稱	Hilti Firestop Mortar CP636		
送檢單位名稱	喜利得(香港)有限公司 (HILTI (HONG KONG) LIMITED)		
收樣編號	FS-250517-01		
試件特徵描述	試件外觀：電線槽及電線通過的滲透密封件，外觀完好 試件數量：1 件		
試件型號規格	防火過牆洞口尺寸：750mm (H) × 750mm(W) 防火過牆洞口厚度：150mm 防火過牆封堵：由 Hilti Firestop Mortar CP636 組成		
試件製造商	Hilti Gesellschaft mit beschränkter Haftung Industriegesellschaft für Befestigungstechnik	試件產地	德國
送樣日期	2025 年 05 月 12 日		
檢測項目	滲透密封件耐火性能		
檢測依據	BS EN 1366-3：2021《服務設施的防火性能測試 - 第 3 部分：滲透密封件》 BS EN 1363-1：2020《防火性能測試 (一般原則)》		
檢測日期	2025 年 05 月 17 日		

TEED-2025-FRT-055

第2頁，共 27 頁





檢測結果	依據 BS EN 1366-3:2021《服務設施的防火性能測試 - 第3部分：滲透密封件》，經檢測後，該滲透密封件檢測結果如下：		
	耐火完整性 (E)：	持續火焰	120 分鐘 (未失效)
		縫隙測量	120 分鐘 (未失效)
		點燃棉墊	120 分鐘 (未失效)
	耐火隔熱性 (I)：	密封件最高溫度	120 分鐘 (未失效)
		密封件接縫最高溫度	120 分鐘 (未失效)
簽發日期：2025 年 06 月 09 日			
備註	1. 送檢單位附上試件圖紙 (見附錄 A 參考圖 1-圖 3) 2. 主要檢測設備：立式耐火測試爐體 (TEED-FE-002)		

報告編寫員：

孫翔

審核：

林振雄

批准：

黃傑勇 (授權簽字人)

TEED-2025-FRT-055

第3頁，共 27 頁





1 檢測目的

- 1.1 按照送檢單位要求，依據歐洲標準 BS EN 1366-3：2021《服務設施的防火性能測試 - 第3部分：滲透密封件》，檢測一個滲透密封件之耐火性能。

2 試件綜述

- 2.1 測試試件為一個電線槽及電線通過的滲透密封件，主要由 Hilti Firestop Mortar CP636 所組成，按照送檢單位要求，電線槽及電線通過的滲透密封件尺寸被設定為：750mm (H) × 750mm (W) × 150mm (Thk.)，滲透密封件的安裝方法是先在過牆位置安裝好電線槽及電線，然後在過牆位置洞口填充滿 CP636，並在 CP636 與電線之間的空隙填充 CP606，再在向火面及背火面的電線槽頂部及底部覆蓋尺寸為 320mm (L) × 50mm (Thk.) 的岩棉。試件之圖則及組成部分均由送檢單位提供，詳細資料可以分別參照附錄 A 的圖 1 至圖 3，以及附錄 A 的表 1。
- 2.2 試件由送檢單位於 2025 年 05 月 12 日送樣至本實驗室及進行安裝，並於 2025 年 05 月 17 日進行檢測。本實驗室沒有參與試件的選取工作。
- 2.3 試件由送檢單位安裝於檢測框上，該檢測框由本實驗室提供。試件為一件 150mm 厚的混凝土之間，尺寸為 750mm (H) × 750mm (W) 的電線槽及電線通過的滲透密封件。混凝土與檢測框架之間以 150mm 厚的磚牆體封堵。
- 2.4 試件之向火面及背火面由送檢單位指定。
- 2.5 試件之厚度、外觀及組成部件已由本實驗室檢測員檢查。
- 2.6 試件在檢測前數天內安裝完畢。由送檢單位送樣至檢測前，本實驗室的溫度在 26°C 至 27°C 之間，相對濕度在 68%至 86%之間。





3 測試設備及程序

- 3.1 測試設備按照歐洲標準 BS EN 1363-1：2020 的要求設置。
- 3.2 爐體內部之平均溫度值由 9 個平均分佈於爐內的板式熱電偶取得，熱電偶距離試件向火面表面(100 ± 50)mm，依據歐洲標準 BS EN 1363-1：2020 所指定之溫度時間關係而操控升溫。
- 3.3 爐體內設有壓力計以監察爐體壓力，依據歐洲標準 BS EN 1366-3：2021 及 BS EN 1363-1：2020，設定試件頂部位置的平面壓力值為 20Pa。在測試開始的 5 分鐘後，試件頂部位置的平面壓力值維持在 20±5Pa；在測試開始的 10 分鐘後，試件頂部位置的平面壓力值維持在 20±3Pa。
- 3.4 試件背火面設有 39 個熱電偶以作監察溫度之用，試件背火面的所有熱電偶均用作判斷試件的耐火隔熱性。其中，背火面密封件的最高溫度由 TC1 至 TC38 測量，試件背火面密封件接縫位置的最高溫度由熱電偶 TC39 測量。
- 3.5 準備棉墊及縫隙測量探棒，在測試過程中用作評估試件的耐火完整性。
- 3.6 測試過程中，應分別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，以及有煙氣散發出的情況也應記錄。
- 3.7 試件向火面及背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的情況以作日後評估之用。





4 測試數據及資料

4.1 測試過程所記錄之數據可以參照附錄 B，記錄內容如下：

4.1.1 實際爐溫按照歐洲標準 BS EN 1363-1：2020 所指定的溫度時間關係圖及表格，分別見圖 4 及表 2；

4.1.2 實際爐體內試件頂部位置的壓力面的壓力時間關係圖，見圖 5；

4.1.3 試件的背火面熱電偶位置、背火面溫度圖及背火面溫度表格，分別見圖 6、圖 7 及表 3；

4.2 在測試過程中，試件的觀察情況已詳細記錄於附錄 C 之表 4，以供參考。

4.3 有關試件圖片見附錄 D。

4.4 試件檢測開始時，周圍環境溫度為 30.2°C。檢測期間，周圍環境溫度為 30.1°C 至 31.7°C。

4.5 在送檢單位的同意下，在 120 分鐘後終止本試件整個測試。

5 耐火極限之評定條件

5.1 按歐洲標準 BS EN 1366-3：2021 之標準，試件之耐火性能將會根據以下之條件作評定：

5.1.1 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度和深度；iii) 試件背火面出現持續的火焰。如棉墊沒有被試件背火面之高溫點燃、試件背火面未出現能讓量測棒插入貫通之裂縫、試件背火面未有出現達到 10s 或以上持續的火焰，試件之耐火完整性才被判斷為合格。





5.1.2 耐火隔熱性 – 當測試過程中，試件發生以下任一限定情況，均判斷試件失去耐火隔熱性，i) 試件背火面任一單點位置(包括移動熱電偶)的溫度升幅超過試件背火面初始溫度 180°C；ii) 試件之耐火完整性失效。

6 檢測結果

6.1 依據歐洲標準 BS EN 1366-3：2021《服務設施的防火性能測試 - 第 3 部分：滲透密封件》，經檢測後，該滲透密封件檢測結果如下：

耐火完整性 (E)：	持續火焰	120 分鐘 (未失效)
	縫隙測量	120 分鐘 (未失效)
	點燃棉墊	120 分鐘 (未失效)
耐火隔熱性 (I)：	密封件最高溫度	120 分鐘 (未失效)
	密封件接縫最高溫度	120 分鐘 (未失效)

* 在送檢單位的同意下，在 120 分鐘後終止本試件整個測試。

7 限制說明

7.1 本報告依據歐洲標準 BS EN 1363-1：2020，以及歐洲標準 BS EN 1363-2：1999 (如適用)，詳細地描述了試件的構造方法、測試情況及測試結果。任何顯著的偏差，包括試件的尺寸、詳細構造、承重、壓力、安裝方式及支撐結構等，超出相關測試標準允許的直接應用範圍，本報告並不涵蓋。

7.2 由於本測試的性質及其量化測量不確定度的難度，本測試並不可能提供測試結果的準確度。





7.3 本測試結果僅反映在特定的測試條件下，對特定的試件之測試情況。本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，同時亦不反映試件在實際火場上所能表現的防火性能。

7.4 本報告僅對送檢試件負責。

8 檢測結果的直接應用

8.1 本報告的檢測結果適用於送檢試件之安裝方式及組合的應用範圍。



[illegible]

3040

圖 1

H16 (CP636) 電線
空腔由 CP636 填上

40x40x2mm
(槽型雙面)
用 H16 H
銅線固定

H16 (CP636) 電線
空腔由 CP636 填上

電線槽 5.0x2.0mm

160g/m²
密度銅箔包膠
電線槽內由
銅線固定

電線槽 5.0x2.0mm
電線 Type C, Cx, F

160g/m²
密度銅箔包膠
電線槽內由
銅線固定

電線槽 4.0x2.0mm
電線 Type A, A1,
A3, 2A

電線槽 1.0x2.0mm
電線 Type 1

160g/m²
密度銅箔包膠
電線槽內由
銅線固定

H16 (CP636)
銅箔固定

750

1050

270

270

270

205

第9頁，共 27 頁

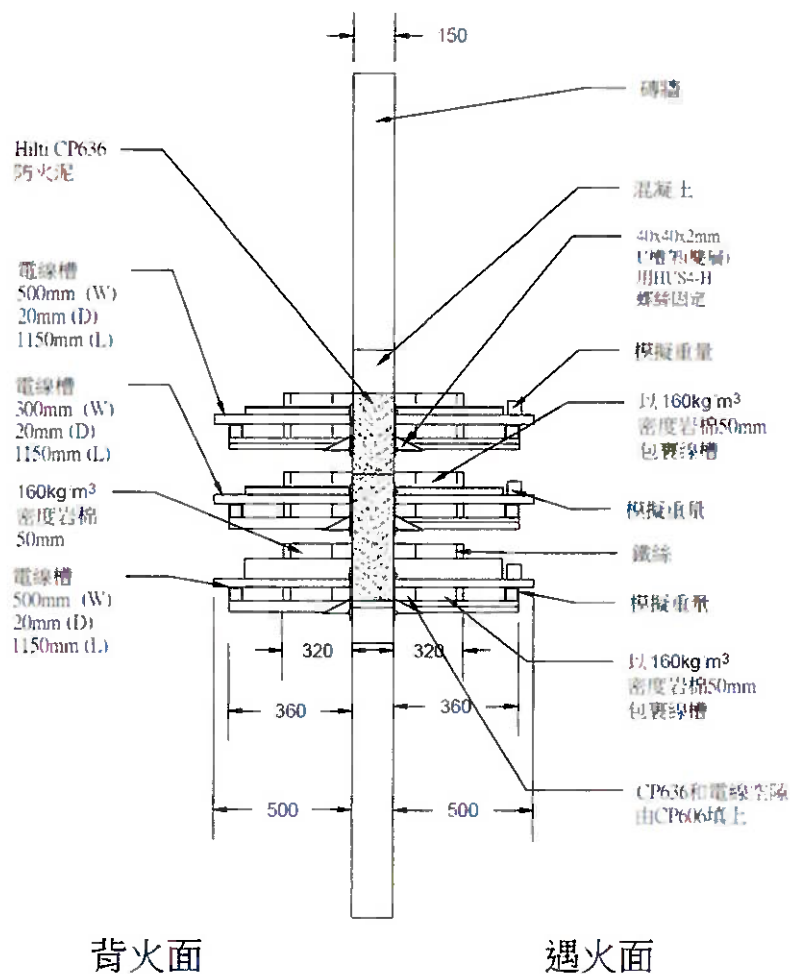


圖 3 測試試件之縱剖面圖



試件組件資料

(參照附錄 A 之圖 1 到圖 3)

(除非有特別指定，否則全部數值都為理論值)

(全部資料和數值均由送檢單位喜利得(香港)有限公司 (HILTI (HONG KONG) LIMITED))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.	Hilti CP636 防火泥	製造商：Hilti Gesellschaft mit beschränkter Haftung Industriegesellschaft für Befestigungstechnik 品牌：Hilti 型號：CP636 產地：德國 顏色：灰色 混合比率：3：1 (防火泥：水) 固化－脫模時間：2－4 小時 (牆身位置) 密度：0.82g/cm ³ 施工溫度：+5°C 至+45°C 填充位置：在尺寸為 750mm (H) × 750mm (W) × 150mm (Thk.) 的過牆洞口填充滿 CP 636
2.	Mineral wool 岩棉	製造商：ROCKWOOL Firesafe Insulation (Guangzhou) Co., Ltd. 品牌：ROCKWOOL 型號：ThermalRock S140.160 產地：Qingyuan China 尺寸：1200 × 600 × 50mm 密度：160kg/m ³ 填充位置：覆蓋於向火面及背火面的線槽頂部及底部，覆蓋 尺寸為：320mm (L) × 50mm (Thk.)，並用鐵絲固定





3.	Hilti CP606	製造商：Hilti Gesellschaft mit beschränkter Haftung Industriegesellschaft für Befestigungstechnik 品牌：Hilti 型號：CP606 產地：德國 填充位置：填充於 CP636 與電線之間的空隙
4.	線槽#1	尺寸：500mm (W) × 20mm (D) × 1150mm (L) 材質：1.2mm (Thk.) Perforated galvanized mild steel 電線：Type – C1 × 1、C3 × 1、E × 1 壓載重量：15kg 放置於向火面線槽末端 (用作模擬電線重量)
5.	線槽#2	尺寸：300mm (W) × 20mm (D) × 1150mm (L) 材質：1.2mm (Thk.) Perforated galvanized mild steel 電線：Type – A1 × 3、A3 × 3、B × 2 壓載重量：9kg 放置於向火面線槽末端 (用作模擬電線重量)
6.	線槽#3	尺寸：100mm (W) × 20mm (D) × 1150mm (L) 材質：1.2mm (Thk.) Perforated galvanized mild steel 電線：Type – E × 1 壓載重量：3kg 放置於向火面線槽末端 (用作模擬電線重量)
7.	線槽#4	尺寸：500mm (W) × 20mm (D) × 1150mm (L) 材質：1.2mm (Thk.) Perforated galvanized mild steel 電線：N/A 壓載重量：15kg 放置於向火面線槽末端 (用作模擬電線重量)
8.	電線	A1 = 5 × 1.5mm ² core electrical cable with PVC insulation A3 = 5 × 1.5mm ² core electrical cable with PE-X insulation B = 1 × 95mm ² core electrical cable with PVC insulation C1 = 4 × 95mm ² core electrical cable with PVC insulation C3 = 4 × 95mm ² core electrical cable with PE-X insulation E = 1 × 185mm ² core electrical cable with PVC insulation





9.	金屬支架	由 3 組 $40 \times 40 \times 2\text{mm}$ 的鍍鋅 U 槽鐵架組成 安裝方法：用 Hilti HUS4-H 螺絲配搭金屬底板固定 U 槽鐵架於牆上
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附錄 B
測試數據

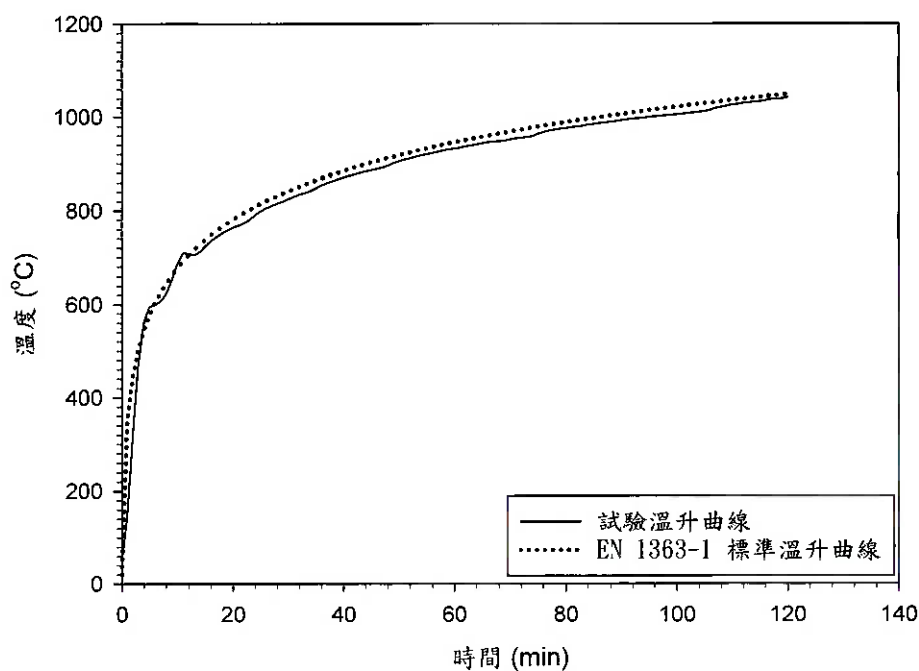


圖 4 平均爐溫與標準(溫度/時間)曲線圖

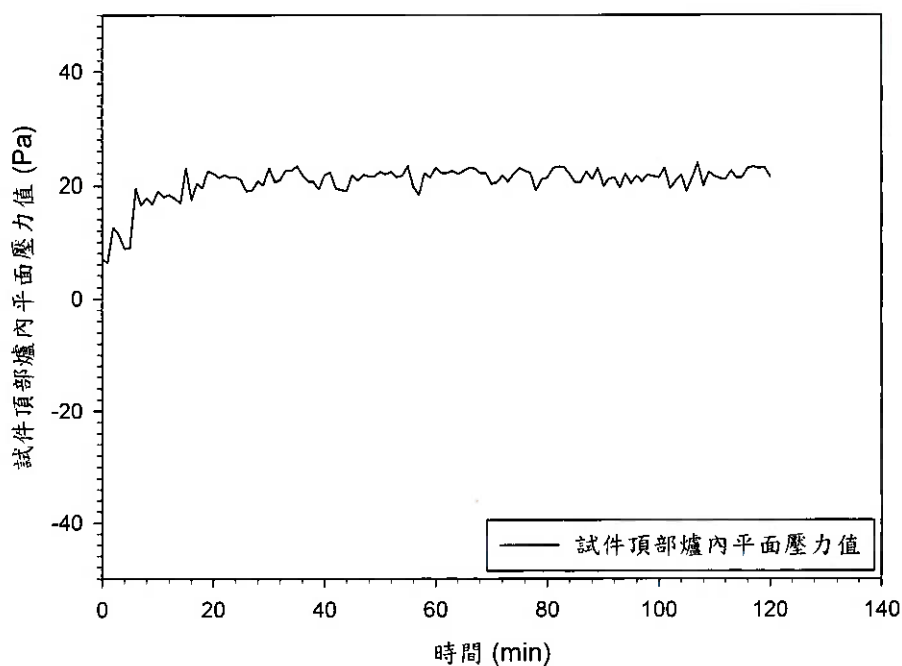


圖 5 爐內密封件頂部平面壓力值(壓力/時間)曲線圖



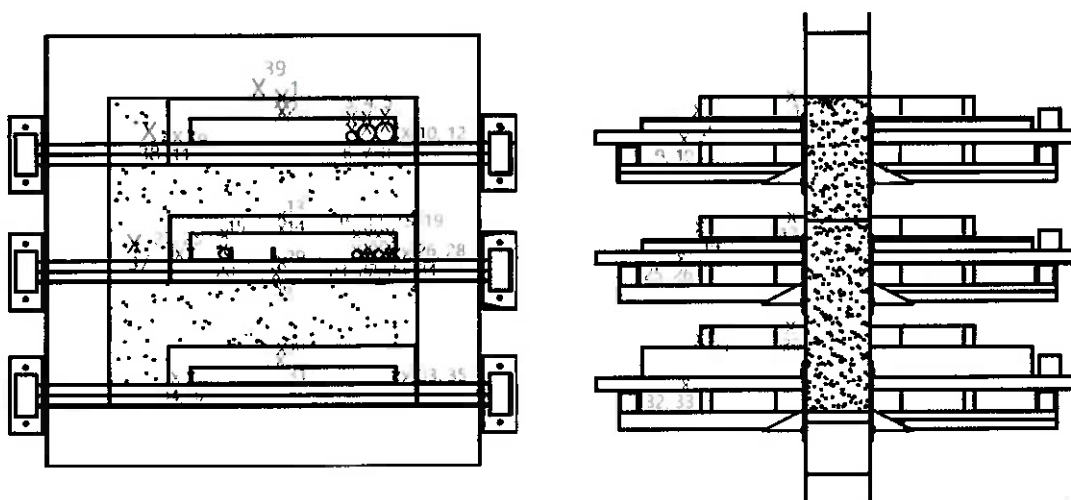


表 2 平均爐溫與標準溫度之比較

時間 (min)	標準爐內溫度(°C)	爐內平均溫度(°C)
0	20.0	50.8
1	349.2	148.7
2	444.5	316.0
3	502.3	469.2
4	543.9	561.4
5	576.4	594.8
6	603.1	600.0
7	625.8	606.1
8	645.5	623.0
9	662.8	653.2
10	678.4	686.8
12	705.4	707.4
14	728.3	712.1
16	748.2	735.5
18	765.7	751.4
20	781.4	764.0
22	795.6	774.1
24	808.5	790.3
26	820.5	805.5
28	831.5	815.5
30	841.8	824.8
35	864.8	848.7
40	884.7	870.9
45	902.3	885.9
50	918.1	905.1
55	932.3	920.1
60	945.3	932.1
65	957.3	943.0
70	968.4	951.3
75	978.7	963.3
80	988.4	975.6
85	997.4	984.6
90	1006.0	992.3
95	1014.1	999.5
100	1021.8	1005.2
105	1029.1	1011.8
110	1036.0	1025.9
115	1042.7	1033.1
120	1049.0	1041.6

* 測試過程中，實際爐溫控制在標準允許的公差範圍之內





X：最高溫升熱電偶

圖 6 測試試件之背火面熱電偶位置圖

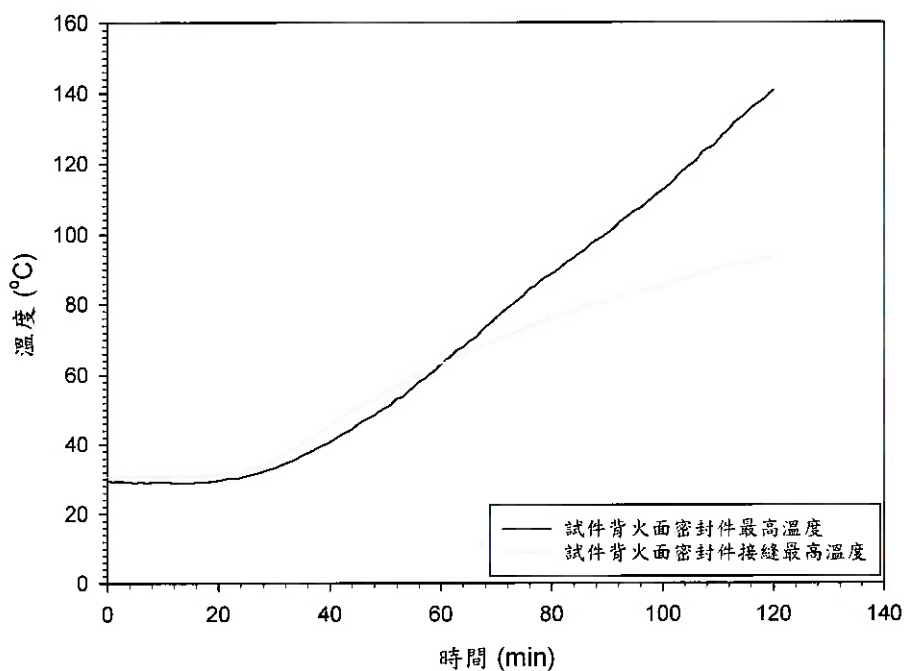


圖 7 測試試件之背火面溫度/時間曲線圖





表3 測試試件之背火面單點溫度

時間 (min)	單點熱電偶溫度 (°C)									
	1	2	3	4	5	6	7	8	9	10
0	29.3	30.1	29.9	30.0	30.0	29.7	29.8	29.6	30.6	30.0
5	28.6	29.6	29.3	29.4	29.4	29.1	29.0	28.9	30.0	29.3
10	28.6	29.6	29.3	29.4	29.4	29.0	29.0	29.2	30.0	29.3
15	28.4	29.3	29.1	29.1	29.1	29.1	28.8	28.8	29.7	29.1
20	28.4	29.3	29.3	29.3	29.4	29.8	29.2	29.6	29.6	29.3
25	28.5	29.3	29.8	29.6	29.9	31.3	30.1	30.9	29.5	29.6
30	28.6	29.0	30.5	30.3	30.7	33.4	31.6	33.2	29.1	30.2
35	29.5	29.4	32.2	31.9	32.5	36.7	34.2	36.8	29.4	31.7
40	30.4	29.7	34.4	33.6	34.3	40.5	37.5	40.7	29.6	33.0
45	31.7	30.1	36.7	35.9	37.1	45.0	41.7	45.7	29.8	35.5
50	32.8	30.5	39.8	38.5	39.8	50.1	46.4	50.5	30.0	37.1
55	34.0	30.7	42.4	41.2	43.1	55.2	51.5	56.4	30.1	40.5
60	35.5	31.4	46.4	45.3	47.4	61.2	57.4	62.9	30.3	43.8
65	37.2	32.2	50.2	48.6	50.9	67.6	63.6	69.5	30.9	46.9
70	38.4	32.8	54.2	52.8	55.7	73.8	70.1	76.2	31.2	51.7
75	40.2	33.8	58.9	57.7	60.5	80.6	77.5	82.6	31.6	56.5
80	42.2	34.6	62.6	60.5	63.7	86.6	84.1	88.7	32.4	58.5
85	44.3	35.4	66.3	64.8	67.4	91.8	90.0	94.6	33.0	61.2
90	46.4	36.2	70.3	69.1	71.0	95.2	95.7	100.3	33.4	61.8
95	48.1	36.5	72.5	72.1	74.8	99.0	101.5	106.5	33.4	63.9
100	50.1	37.5	77.6	76.7	78.0	105.0	109.0	112.4	34.0	64.4
105	51.8	38.1	80.8	80.8	82.3	110.0	115.6	119.6	34.4	68.1
110	54.2	39.1	86.0	85.6	86.2	116.1	123.0	126.6	35.0	71.9
115	56.2	40.0	90.5	90.1	90.5	122.5	130.2	134.0	35.6	74.6
120	57.6	41.0	95.5	95.2	95.0	129.2	137.9	140.7	35.9	78.3





表3 測試試件之背火面單點溫度 (續)

時間 (min)	單點熱電偶溫度(°C)									
	11	12	13	14	15	16	17	18	19	20
0	30.3	29.4	29.4	30.3	30.4	29.9	30.2	30.3	30.6	30.6
5	29.7	29.6	28.7	29.5	29.7	29.3	30.0	30.1	30.4	30.3
10	30.0	29.5	28.7	29.6	29.8	29.2	29.8	29.9	30.1	30.1
15	29.4	29.2	28.4	29.3	29.4	29.4	29.7	29.9	29.9	30.0
20	29.4	28.8	28.2	29.3	29.5	48.8	29.8	30.6	29.9	30.6
25	29.2	29.3	28.1	29.1	29.6	30.0	30.4	31.5	30.0	31.6
30	29.0	29.4	27.9	28.8	29.8	29.8	31.0	32.6	30.1	33.1
35	29.4	31.7	28.1	29.2	30.8	30.5	32.0	34.1	30.7	35.6
40	29.4	31.2	28.1	29.4	31.4	31.4	33.0	35.6	31.3	38.0
45	29.9	34.2	28.3	29.7	33.0	32.6	34.2	37.3	31.9	41.6
50	29.9	35.0	28.5	29.8	33.3	33.5	35.4	38.8	32.5	44.1
55	29.9	38.1	28.6	30.0	35.1	34.7	36.6	40.5	33.3	48.3
60	30.5	40.3	28.8	30.5	37.0	36.0	38.1	42.6	34.3	52.3
65	31.1	42.2	29.3	30.9	38.6	38.0	39.8	44.7	35.4	56.4
70	31.0	45.6	29.4	31.2	40.3	39.3	41.1	46.3	36.3	60.3
75	31.6	49.5	29.8	31.6	42.1	40.9	42.8	48.5	37.4	64.1
80	32.2	52.0	30.6	32.4	43.4	43.0	44.8	51.2	39.0	67.5
85	33.0	54.4	31.6	33.4	45.4	45.0	46.8	53.1	40.2	70.6
90	33.4	54.8	32.9	34.1	46.1	47.0	48.9	55.4	41.9	72.8
95	33.5	57.2	33.6	34.7	47.9	49.2	50.7	58.0	43.1	75.9
100	33.9	57.6	35.0	35.3	48.0	51.2	52.8	59.7	44.7	76.0
105	34.1	60.2	36.2	36.3	49.7	53.1	54.3	62.0	46.4	78.9
110	35.0	62.5	37.8	37.1	51.1	54.8	57.3	64.5	48.4	81.9
115	35.4	65.1	39.3	37.7	50.7	56.7	59.3	67.0	50.1	83.9
120	35.6	68.2	40.7	37.9	52.8	58.0	60.2	68.6	50.1	86.3





表3 測試試件之背火面單點溫度 (續)

時間 (min)	單點熱電偶溫度(°C)									
	21	22	23	24	25	26	27	28	29	30
0	30.4	30.4	30.6	30.8	30.4	30.5	30.8	30.5	30.8	29.9
5	30.3	30.2	30.3	30.5	30.6	30.4	30.7	30.4	30.8	29.8
10	30.0	29.9	30.0	30.2	30.5	30.1	30.4	30.2	30.4	29.5
15	29.8	29.8	29.9	30.0	30.6	29.9	30.2	30.0	30.2	29.2
20	29.8	30.1	29.8	30.1	30.8	30.0	30.1	29.9	30.1	29.0
25	30.0	30.6	29.9	30.3	31.0	30.0	30.1	29.9	30.0	29.0
30	30.3	31.3	30.0	30.3	31.1	30.1	30.0	30.1	29.9	28.9
35	30.8	32.3	30.6	31.0	31.4	30.7	30.3	30.3	30.1	29.1
40	31.5	33.5	31.0	31.4	31.8	31.1	30.7	30.6	30.4	29.1
45	32.3	34.9	31.7	32.3	31.9	31.9	31.0	30.9	30.5	29.2
50	33.0	36.3	32.1	32.6	32.0	32.2	31.5	31.2	30.7	29.2
55	34.2	38.0	33.3	33.7	32.3	33.3	31.9	31.9	30.9	29.5
60	35.3	39.8	34.2	34.7	32.5	34.2	32.6	32.6	31.2	29.7
65	36.8	41.8	35.4	35.8	32.8	35.3	33.7	33.2	31.8	30.1
70	37.9	43.6	36.5	36.6	32.7	36.2	33.9	33.9	31.8	30.2
75	39.2	45.6	37.7	37.8	32.9	37.3	34.8	34.8	32.2	30.8
80	41.3	48.3	39.4	39.4	33.4	38.8	36.0	35.8	33.0	31.6
85	42.7	50.4	41.1	40.6	33.6	40.3	36.7	36.9	33.6	32.6
90	44.6	52.8	42.7	42.1	33.8	41.4	37.5	37.6	34.0	33.7
95	46.3	55.0	44.5	43.6	33.9	42.8	37.8	38.7	34.3	34.7
100	47.8	57.2	46.0	44.9	34.0	43.5	38.5	39.5	34.7	36.0
105	50.0	59.7	48.1	46.8	34.2	45.3	39.2	40.9	35.4	37.8
110	52.0	62.5	50.0	48.3	35.3	47.2	41.0	42.5	36.9	39.9
115	54.1	65.2	51.6	50.2	36.2	48.6	42.5	43.8	38.0	42.3
120	54.5	66.2	51.9	50.1	35.6	48.9	42.0	44.1	37.5	42.9





表3 測試試件之背火面單點溫度 (續)

時間 (min)	單點熱電偶溫度(°C)								
	31	32	33	34	35	36	37	38	39
0	30.8	31.0	31.4	31.6	31.5	31.8	30.9	30.7	30.7
5	30.7	30.6	31.5	31.6	31.6	32.0	31.1	30.8	30.7
10	30.4	30.0	31.7	31.8	31.7	32.1	30.1	30.9	30.7
15	30.0	29.5	31.5	31.7	31.7	32.0	30.9	30.8	30.8
20	30.1	29.8	31.7	31.8	31.8	32.2	31.0	31.0	31.3
25	29.9	29.8	31.8	31.9	31.8	32.2	30.6	31.1	32.6
30	29.8	29.4	31.8	31.9	31.8	32.3	31.1	31.6	35.5
35	30.0	29.5	31.9	32.1	32.0	32.4	30.7	32.5	40.1
40	30.0	29.8	32.1	32.2	32.1	32.7	30.4	34.0	45.2
45	30.1	30.1	32.3	32.5	32.5	33.0	31.6	35.8	50.2
50	29.9	29.6	32.3	32.5	32.5	33.2	31.3	38.0	55.0
55	30.2	30.2	32.6	32.9	32.8	33.6	32.0	40.7	59.2
60	30.3	29.9	32.8	33.2	33.3	33.9	32.3	43.4	63.2
65	30.6	30.9	33.3	33.5	33.7	34.4	34.2	46.3	66.7
70	30.6	31.3	33.5	33.7	34.0	34.8	34.0	49.1	69.9
75	30.9	30.9	34.0	34.4	34.7	35.3	36.3	52.1	73.1
80	31.4	32.0	34.5	34.8	35.0	35.9	37.0	55.2	76.0
85	31.9	32.3	35.3	35.4	35.9	36.6	38.7	58.7	78.7
90	32.3	33.4	35.9	36.0	36.5	37.2	41.3	62.4	81.0
95	32.3	33.0	36.1	36.2	36.9	37.4	42.5	66.0	83.3
100	32.8	33.3	36.5	36.8	37.1	37.7	44.0	70.4	85.1
105	33.1	34.7	37.0	37.5	37.8	38.2	46.0	75.2	87.9
110	34.2	35.2	37.4	37.5	38.2	38.8	49.0	80.6	90.2
115	35.4	36.8	37.8	38.4	38.6	39.3	51.1	86.1	92.1
120	34.9	35.6	38.2	38.5	39.0	39.6	52.4	87.9	93.7





附錄 C

觀察情況

表 4 測試過程中，觀察本試件情況如下

時間 (小時:分鐘)	事件
-0:01	攝錄機、監察和操控儀器啟動。
0:00	測試開始，周圍環境溫度為 30.2°C。
0:15	試件背火面沒有明顯變化。
0:30	試件背火面密封件週邊出現水漬。
0:45	試件背火面沒有明顯變化。
1:00	試件背火面密封件週邊的水漬開始消失。 試件之耐火完整性及耐火隔熱性仍能符合標準。
1:15	試件背火面沒有明顯變化。
1:30	試件背火面沒有明顯變化。
1:45	試件背火面沒有明顯變化。
2:00	試件背火面沒有明顯變化。在送檢單位同意情況下，測試結束。 試件之耐火完整性及耐火隔熱性仍能符合標準。
備註	試件背火面結構仍然完整 (見圖 17)。





附錄 D

圖片



圖 8 測試前試件向火面



圖 9 測試前試件背火面



圖 10 測試 15min 後試件背火面



圖 11 測試 30min 後試件背火面



圖 12 測試 45min 後試件背火面



圖 13 測試 60min 後試件背火面



圖 14 測試 75min 後試件背火面



圖 15 測試 90min 後試件背火面



圖 16 測試 105min 後試件背火面



圖 17 測試 120min 後試件背火面



圖 18 測試後試件向火面

-----報告結束-----





88 Empire Drive • St. Paul, Minnesota • 55103
(651) 642-1150 • fax (651) 642-1239

VOC Content Test Certificate

October 26, 2009

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

Sample Description: Hilti CP 636

Date tested: July 20, 2009

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: Legend Project Number 0903311

Specification	Product
LEED 2009 (LEED 3.0) LEED 2.2 IEQ-4.1: Low-Emitting Materials – Firestop Materials	Hilti CP 636
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	
Multipurpose Construction Materials; VOC Limit: 70 g/L	Product contains: <1 g/L of VOC

William Welbes
Vice President of Laboratory Operations

Allen Noreen, Ph.D.
Technical Director



澳門特別行政區政府
Governo da Região Administrativa Especial de Macau

消防局
Corpo de Bombeiros

頁編號 1/1
Pág. n.º 3815/GEL/DPI/2025
文件編號
Inf. n.º 02 07 2025
日期: / /
Data

核閱
Visto
於 7 / 7 / 2025
Em
防火廳代廳長
O Chefe do D.P.I. Subst^a

意見書

事由：申請審批防火填充物料
參件編號：--

13/06/2025 收到喜利得(香港)有限公司之文書及其附錄文件，本局防火廳之意見如下：

Ø1. 產品列表：

項目	產品名稱	製造商
1.	Hilti Firestop Mortar CP636	Hilti Gesellschaft mit beschränkter Haftung Industriegesellschaft für Befestigungstechnik

1.1 產品規格：

防火過牆洞口尺寸：750mm(H) x 750mm(W)

防火過牆洞口厚度：150mm

防火過牆封堵：由 Hilti Firestop Mortar CP636 組成

1.2 根據遞交的資料有以下分析結果：

1.2.1 “Hilti Firestop Mortar CP636”，製造商：Hilti Gesellschaft mit beschränkter Haftung Industriegesellschaft für Befestigungstechnik，經 BS EN 1366-3:2021 及 BS EN 1363-1:2020 檢驗，檢測結果如下：

耐火完整性 (E) :	持續火焰	120 分鐘 (未失效)
	縫隙測量	120 分鐘 (未失效)
	點燃棉墊	120 分鐘 (未失效)
耐火隔熱性 (I) :	密封件最高溫度	120 分鐘 (未失效)
	密封件接縫最高溫度	120 分鐘 (未失效)

1.2.2 性能分級：依據 BS EN 13501-2:2016 的條款 7.5 對滲透密封件 “Hilti Firestop Mortar CP636” 的耐火性能進行分級，判定其耐火性能：滿足 BS EN 13501-2:2016 的 EI 120 等級要求；

1.2.3 上述結果只反映與報告(2025-FRT055)相同之尺寸、詳細構造、承重、壓力、安裝方法及支撐結構。

1.3 根據第 15/2021 號法律《樓宇及場地防火安全的法律制度》及第 39/2022 號行政法規核准《樓宇及場地防火安全技術規章》之規定，本廳對此滲透密封件的耐火性能：滿足 BS EN 13501-2:2016 的 EI 120 等級要求沒有異議。

陳家明

陳家明
首席消防員

CB10109_DPI8484_C-0058



澳門特別行政區政府
Governo da Região Administrativa Especial de Macau
消防局
Corpo de Bombeiros

頁編號 1/1
Pag. n.
文件編號 272/DT/2006
Inf. n.
日期: 14 / 02 / 2006
Data

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 636 Firestop Mortar

參件： 進入編號 1101 (25/01/2006)
喜利得(香港)有限公司來函編號：M-AL_LE04_06(18/01/2006)
意見書編號 243/DT/2006 (09/02/2006)

Ø1. 上述公司交來以下 CP636 Firestop Mortar 的資料：

- a. 澳門大學按照 BS476 Part20 : 1987 檢驗依據測試標準發出的 CP636 Firestop Mortar 檢驗報告複印本(No2005-FRT43)；
- b. Underwriters Laboratories(UL Online Certifications Directory)XHHW.R13240 Fill, Void or Cavity Materials –CP636 Firestop Mortar for use in Through –Penetration Firestop System 資料；
- c. Warrington 防火研究中心發出的測試報告複印本，編號為 WARRES No.62305/B & ; 134523；

Ø2. 根據上述的資料分析後，包括 CP636 Firestop Mortar 的試件組合於試驗結果中顯示具 CRF245 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. 本局對 CP636 Firestop Mortar 使用於符合《防火安全規章》規範的標準時沒有異議。但最終決定仍須徵詢權限部門(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

研究暨試驗科科长

黃勁松

黃勁松
副一等消防區長



Certificate of Compliance

This certificate is issued for the following firestopping products:

FS-ONE High Performance Intumescent Firestop Sealant	CP 643N Firestop Collar
CP680 Cast-In Firestop Device	CP606 Flexible Firestop Sealant
CP680-N Cast-In Firestop Device	CP-672 Firestop Joint Spray
CP680-P Cast-In Firestop Device	CP620 Firestop Foam
CP682 Cast-In Firestop Device	CP680-M Cast-In Firestop Device
CP 648E Wrap Strip	CP 675T Firestop Board
CP617 Firestop Putty	CP618 Firestop Putty
CP601 S Elastomeric Firestop Sealant	CP619T Putty Roll
CP636 Firestop Mortar	CP670 Firestop Board
CP 604 Self Leveling Firestop Sealant	CP673 Firestop Coating
CP611A High Performance Intumescent Firestop Sealant	

Prepared for:

Hilti AG
Feldkircherstrasse 100
FL-9494 Schaan
Liechtenstein

FM Approvals Class: 4990

Approval Identification: 3051456

Approval Granted: June 4, 2014

To verify the availability of the Approved product, please refer to www.approvalguide.com.

Said Approval is subject to satisfactory field performance, continuing Surveillance Audits, and strict conformity to the constructions as shown in the Approval Guide, an online resource of FM Approvals.

Cynthia E. Frank
AVP - Manager, Materials
FM Approvals
1151 Boston-Providence Turnpike
Norwood, MA 02062

Issued: June 30, 2016

Certificate of Compliance

Certificate Number 20060905-R13240
Report Reference 2006 September 5
Issue Date 2006 September 5

Page 1 of 1



**Underwriters
Laboratories Inc.®**

Issued to: **Hilti Construction Chemicals, Div of Hilti Inc.**
5400 S 122ND East Ave
Tulsa, OK 74146


*This is to certify that
representative samples of* **Fill, Void or Cavity Materials
CP 636**

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

Standard(s) for Safety: **ANSI/UL 1479**

Additional Information: **CP 636 Mortar for use in Through-Penetration Firestop System Nos.
C-AJ-1140, C-AJ-4017 and C-AJ-6006.**

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.

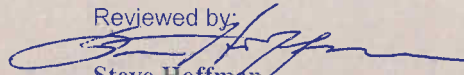
Look for the UL Classification Mark on the product

Issued by:


Mona Couloute

Underwriters Laboratories Inc.

Reviewed by:


Steve Hoffman

Underwriters Laboratories Inc.

Attn. : To whom it may concern

Date : 1 April 2025
Ref. : 041/FP/SC/25

Subject : Country of Origin- Hilti CP636 Firestop Mortar

Dear Sir / Madam,

Enclosed please find the information of Hilti CP636 Firestop Mortar.

Brand Name : Hilti

Model Name : Hilti CP636 Firestop Mortar

Manufacturer : Hilti Corporation

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

Manufacturer Contact Person : Spencer Cheung

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 : Spencer Cheung (+852 9732 1231)

Country of Origin : India

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,



Spencer Cheung
Head of Product Leadership Strategy

Date: 30 June 2021

Ref.: 076/FP/BL/21

Subject: Hilti CP 636 Firestop Mortar – LEED Information

To Whom It May Concern:

- The Hilti CP 636 Firestop Mortar is manufactured in India.
- The package of Hilti CP 636 Firestop Mortar can be recycled.
- There is no recycled content in Hilti CP 636 Firestop Mortar and it cannot be recycled.
- The Hilti CP 636 Firestop Mortar does not share any rapidly renewable materials.
- The VOC content of the Hilti CP 636 Firestop Mortar is <1 g/l.

If you would like to know more about Hilti solutions for LEED buildings or should you have any further questions, please do not hesitate to contact our Customer Service Hotline at 8228-8118 or email us at hksales@hilti.com.

Yours faithfully,



Bill Lee
Product Portfolio Manager
Hilti (Hong Kong) Ltd.

To whom it may concern

Date: 22nd April 2016

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, CP636 Firestop Mortar is 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,



Andrew Lau
Product Manger

CP 636

Safety Data Sheet

according to the United Nations GHS (Rev. 5, 2013)

Issue date: 13/10/2020

Revision date: 13/10/2020

Supersedes: 03/04/2020

Version: 2.1

SECTION 1: Identification

1.1. GHS Product identifier

Product form Mixture
Product name CP 636
Product code BU Fire Protection



1.2. Other means of identification

No additional information available

1.3. Recommended use of the chemical and restrictions on use

Recommended use Firestop mortar

1.4. Supplier's details

Hilti (Hong Kong) Ltd.
701-704, 7/F, Tower A, Manulife Financial Centre
223 Wai Yip Street, Kwun Tong
Kowloon - Hong Kong
T +852 27734 700
hksales@hilti.com

Supplier

Hilti (Hong Kong) Ltd.
701-704, 7/F, Tower A, Manulife Financial Centre
223 Wai Yip Street, Kwun Tong
Kowloon - Hong Kong
T +852 27734 700
hksales@hilti.com

Department issuing data specification sheet

Hilti AG
Feldkircherstraße 100
9494 Schaan - Liechtenstein
T +423 234 2111
chemicals.hse@hilti.com

1.5. Emergency phone number

Emergency number Schweizerisches Toxikologisches Informationszentrum – 24h Service
+41 44 251 51 51 (international)
+852 27734 700

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture

Classification according to the United Nations GHS

Skin corrosion/irritation, Category 2	H315	Calculation method
Serious eye damage/eye irritation, Category 1	H318	Calculation method
Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation	H335	Calculation method
Full text of H statements : see section 16		

CP 636

Safety Data Sheet

according to the United Nations GHS (Rev. 5, 2013)

Adverse physicochemical, human health and environmental effects

May cause respiratory irritation, Causes skin irritation, May cause an allergic skin reaction, Causes serious eye damage.

2.2. GHS Label elements, including precautionary statements

Labelling according to the United Nations GHS

Hazard pictograms (GHS UN)



GHS05

GHS07

Signal word (GHS UN)

Danger

Hazardous ingredients

Portland cement; Flue dust, Portland, chemicals

Hazard statements (GHS UN)

H315 - Causes skin irritation
H318 - Causes serious eye damage
H335 - May cause respiratory irritation

Precautionary statements (GHS UN)

P261 - Avoid breathing dust.
P280 - Wear eye protection, protective gloves, protective clothing.
P302+P352 - IF ON SKIN: Wash with plenty of water/....
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P332+P313 - If skin irritation occurs: Get medical advice/attention.
P310 - Immediately call a POISON CENTER/doctor/....

2.3. Other hazards which do not result in classification

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to the United Nations GHS
Portland cement	(CAS-No.) 65997-15-1	25 – 40	Skin corrosion/irritation, Category 2, H315 Serious eye damage/eye irritation, Category 1, H318 Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation, H335
Flue dust, Portland, chemicals	(CAS-No.) 68475-76-3	1 – 2.5	Skin corrosion/irritation, Category 2, H315 Serious eye damage/eye irritation, Category 1, H318 Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation, H335

Full text of H-statements: see section 16

SECTION 4: First-aid measures

4.1. Description of necessary first-aid measures

First-aid measures after inhalation

Remove person to fresh air and keep comfortable for breathing. Call a poison center or a doctor if you feel unwell.

First-aid measures after skin contact

Wash skin with plenty of water. Take off contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention.

CP 636

Safety Data Sheet

according to the United Nations GHS (Rev. 5, 2013)

First-aid measures after eye contact	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately.
First-aid measures after ingestion	Call a poison center or a doctor if you feel unwell.

4.2. Most important symptoms/effects, acute and delayed

Symptoms/effects after inhalation	May cause respiratory irritation.
Symptoms/effects after skin contact	Irritation. May cause an allergic skin reaction.
Symptoms/effects after eye contact	Serious damage to eyes.

4.3. Indication of immediate medical attention and special treatment needed, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable extinguishing media

Suitable extinguishing media	Water spray. Dry powder. Foam.
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5.2. Specific hazards arising from the chemical

No additional information available

5.3. Special protective actions for fire-fighters

Protection during firefighting	Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.
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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures	Ventilate spillage area. Avoid breathing dust. Avoid contact with skin and eyes.
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6.1.2. For emergency responders

Protective equipment	Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
----------------------	---

6.2. Environmental precautions

Prevent entry to sewers and public waters.

6.3. Methods and materials for containment and cleaning up

Methods for cleaning up	Mechanically recover the product.
Other information	Dispose of materials or solid residues at an authorized site.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling	Use only outdoors or in a well-ventilated area. Avoid breathing dust. Avoid contact with skin and eyes. Wear personal protective equipment.
Hygiene measures	Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions	Store locked up. Store in a well-ventilated place. Keep container tightly closed. Keep cool. Protect from moisture.
Storage temperature	5 – 30 °C

CP 636

Safety Data Sheet

according to the United Nations GHS (Rev. 5, 2013)

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Appropriate engineering controls

Appropriate engineering controls Ensure good ventilation of the work station.
Environmental exposure controls Avoid release to the environment.

8.3. Individual protection measures, such as personal protective equipment (PPE)

Hand protection Wear protective gloves.

Type	Material	Permeation	Thickness (mm)	Penetration	Standard
Disposable gloves	Nitrile rubber (NBR)	3 (> 60 minutes)			EN ISO 374

Eye protection Chemical goggles or safety glasses

Type	Use	Characteristics	Standard
Safety glasses	Dust		EN 166, EN 170

Skin and body protection Wear suitable protective clothing

Respiratory protection Dust production: dust mask with filter type P2

Personal protective equipment symbol(s)



8.4. Exposure limit values for the other components

No additional information available

SECTION 9: Physical and chemical properties

9.1. Basic physical and chemical properties

Physical state	Solid
Appearance	Powder
Colour	Grey.
Odour	Not available
Odour threshold	Not available
Melting point	> 1000 °C
Freezing point	Not applicable
Boiling point	Not available
Flammability (solid, gas)	Non flammable.
Explosive limits	Not applicable
Lower explosive limit (LEL)	Not applicable
Upper explosive limit (UEL)	Not applicable
Flash point	Not applicable
Auto-ignition temperature	Not applicable
Decomposition temperature	Not available

CP 636

Safety Data Sheet

according to the United Nations GHS (Rev. 5, 2013)

pH	Not available
pH solution	Not available
Viscosity, kinematic (calculated value) (40 °C)	Not applicable
Partition coefficient n-octanol/water (Log Kow)	Not available
Vapour pressure	Not available
Vapour pressure at 50 °C	Not available
Density	Not available
Relative density	Not applicable
Relative vapour density at 20 °C	Not applicable
Solubility	Soluble in water.
Particle size	Not available
Particle size distribution	Not available
Particle shape	Not available
Particle aspect ratio	Not available
Particle specific surface area	Not available

9.2. Data relevant with regard to physical hazard classes (supplemental)

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	Not classified
Acute toxicity (dermal)	Not classified
Acute toxicity (inhalation)	Not classified
Skin corrosion/irritation	Causes skin irritation.
Serious eye damage/irritation	Causes serious eye damage.
Respiratory or skin sensitisation	Not classified
Germ cell mutagenicity	Not classified
Carcinogenicity	Not classified

CP 636

Safety Data Sheet

according to the United Nations GHS (Rev. 5, 2013)

Reproductive toxicity	Not classified
STOT-single exposure	May cause respiratory irritation.
STOT-repeated exposure	Not classified
Aspiration hazard	Not classified

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.
Hazardous to the aquatic environment, short-term (acute)	Not classified
Hazardous to the aquatic environment, long-term (chronic)	Not classified

Portland cement (65997-15-1)	
LC50 fish 1	> 1000 mg/l (96 h, Pisces)

12.2. Persistence and degradability

CP 636	
Persistence and degradability	No additional information available
Portland cement (65997-15-1)	
Not rapidly degradable	
Persistence and degradability	Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable

12.3. Bioaccumulative potential

CP 636	
Bioaccumulative potential	No additional information available
Portland cement (65997-15-1)	
Bioaccumulative potential	Bioaccumulation: not applicable.

12.4. Mobility in soil

CP 636	
Mobility in soil	No additional information available
Portland cement (65997-15-1)	
Ecology - soil	No (test)data on mobility of the substance available.

12.5. Other adverse effects

Ozone	Not classified
Other adverse effects	No additional information available

CP 636

Safety Data Sheet

according to the United Nations GHS (Rev. 5, 2013)

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods	Dispose of contents/container in accordance with licensed collector's sorting instructions.
Product/Packaging disposal recommendations	Dispose in a safe manner in accordance with local/national regulations. Avoid release to the environment.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

ADR	IMDG	IATA	RID
14.1. UN number			
Not applicable	Not applicable	Not applicable	Not applicable
14.2. UN proper shipping name			
Not applicable	Not applicable	Not applicable	Not applicable
14.3. Transport hazard class(es)			
Not applicable	Not applicable	Not applicable	Not applicable
14.4. Packing group			
Not applicable	Not applicable	Not applicable	Not applicable
14.5. Environmental hazards			
Dangerous for the environment : No	Dangerous for the environment : No Marine pollutant : No	Dangerous for the environment : No	Dangerous for the environment : No
No supplementary information available			

14.6. Special precautions for user

Overland transport

No data available

Transport by sea

No data available

Air transport

No data available

Rail transport

No data available

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations specific for the product in question

No additional information available



CP 636

Safety Data Sheet

according to the United Nations GHS (Rev. 5, 2013)

SECTION 16: Other information

SDS Major/Minor	None
Issue date	13/10/2020
Revision date	13/10/2020
Supersedes	03/04/2020

Indication of changes:
Composition/information on ingredients.

Full text of H-statements:	
H315	Causes skin irritation
H318	Causes serious eye damage
H335	May cause respiratory irritation

SDS_UN_Hilti

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.



Hilti CP 636 Firestop Mortar Job Reference

Year	Project Name	Customer Name	Project type
2023	14 ANDAR B - D , MACAU.	LEI LUEN FIRE PROTECTION AND	
2023	181A 187 CENTRO COMERCIAL DO GRUPO	CHINA ZHONG JI MECHANICAL INDUSTRY	
2023	201-207 AV. DE VENCESLAU DE MORAIS	WAH TONG AIR CONDITIONING &	
2023	ALAMEDA DR CARLOS D'ASSUMPCAO	PACILINK ENGINEERING (MACAU) LTD	
2023	ALAMEDA DR. CARLOS D'ASSUMPCAO	READY SYSTEM ENGINEERING LIMITED	
2023	ALAMEDA DR. CARLOS D'ASSUMPCAO	HOU CHUN CONSTRUCTION AND	
2023	ALAMEDA DR. CARLOS D'ASSUMPCAO	VPRO ENGINEERING LIMITED	
2023	ALAMEDA DR. CARLOS D'ASSUMPCAO	SUN HUNG YIP ENGINEERING	
2023	ALAMEDA DR. CARLOS D'ASSUMPCAO	MILLION CREATIVE ENGINEERING	
2023	AVENIDA DE VENCESLAU DE MORAIS	HAP VO ELECTRICAL AND MECHANICAL	
2023	CENTRO GOLDEN DRAGON	FU LEI FIRE PROTECTION ENGINEERING	
2023	EDF. CENTRO COMERCIAL FIRST	CIRCLE ENGINEERING COMPANY LTD	
2023	LAI HO COURT BLK 3 15/T	KAI HING WATER & ELECTRICAL ENG	
2023	MACAU	HUA AO PROJECT	
2023	PATIO DA CONCORDIA NO 5-43	MERCURIO SERVICOS DE ENGENHARIA	
2023	RUA DE PEQUIM 174	KIT YEE ENGINEERING CO.,LTD	
2023	ALAMEDA DR. CARLOS D'ASSUMPCAO 258	SHUN HOU CONSTRUCTION AND	
2023	ALAMEDA DR. CARLOS D'ASSUMPCAO 258	HN CONSTRUCTION AND ENGINEERING	
2023	RUA DE CHOI LONG	CHINA RAILWAY ELECTRIFICATION	
2023	RC MACAU	XIN HONG INTERNATIONAL (MACAU) LTD	
2023	RUA DE CANTAO 72R	GUANGDONG JIANYUE ENGINEERING	
2023	TRAVESSA DE CHAN LOC 8	SAN WA AIR-CONDITIONING CO LTD	
2023	EDF. FIRST INTERNATIONAL C. CENTRE	ROCK-ONE ENGINEERING CO LTD	
2023	22-24 RUA DA TRANQUILIDADE	CHONGQING SANFENG COVANTA	
2023	RUA DA TRANQUILIDADE 22-24	MEI-TECH ENGINEERING COMPANY	
2023	PATIO DE SANTO ONOFRE	KAMDAT ENGINEERING CO., LTD.	
2023	RUA DE CAMILO PESSANHA 12-12A	SHUNG TAT AIR-CONDITIONING & WATER	
2023	AVENIDA DA CONCORDIA 159-199	KENTO ENGINEERING CO. LTD.	
2023	230-246 RUA DE PEQUIM	MOUNT OLIVE ENGINEERING LIMITED	
2023	RUA DE FOSHAN 51	SJM RESORTS, LIMITED	
2023	BECO DO BOTAO 2-18	BRIGHTEN ENGINEERING LIMITED	
2023	258 EDIF. KIN HENG LONG PLAZA	CONSOLIDATED ENGINEERING	
2024	12 ANDAR S-U MACAU	HONGWAY ENGINEERING LIMITED	
2024	ALAMEDA DR CARLOS D'ASSUMPCAO	PACILINK ENGINEERING (MACAU) LTD	



Hilti CP 636 Firestop Mortar Job Reference

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