

Hilti CP 601S Firestop Silicone Sealant

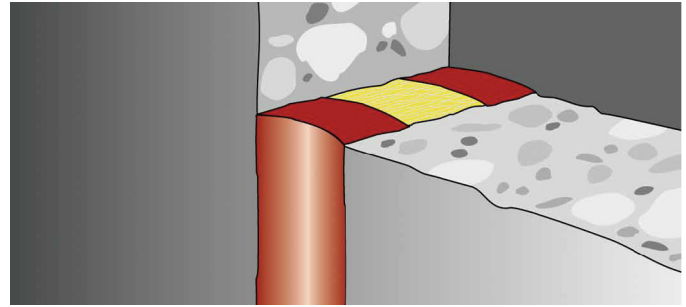
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Elastomeric silicone sealant CP 601S



APPLICATIONS

- Expansion or stretched connection joints in fire compartment walls and floors
- Uninsulated metal pipes in penetrations through fire compartment walls and floors
- Acoustic insulation of pipes
- Suitable for outdoor use
- For use on concrete and masonry (indoors/outdoors)

ADVANTAGES

- Weather and UV-resistant
- Excellent movement capability
- Smoke, gas and water-resistant

Technical data

Chemical basis	Neutral elastic silicone
Base materials	Masonry, Metal, Concrete, Glass
Movement¹⁾	± 25% (ISO 11600)
Approx. tack-free time (ventilated at 77°F, 80% rel. humidity)	15 min
Approx. curing time²⁾	2 mm/3 days
Average volume shrinkage	5 %
Application temperature range	5 - 40 °C
Temperature resistance range	-40 - 160 °C
Storage and transportation temperature range	5 - 25 °C
Shelf life³⁾	12 Months

¹⁾ according to HTC 1250

²⁾ at 75°F/24°C, 50% relative humidity

³⁾ at 77°F/25°C and 50% relative humidity; from date of manufacture



Consumption Guide

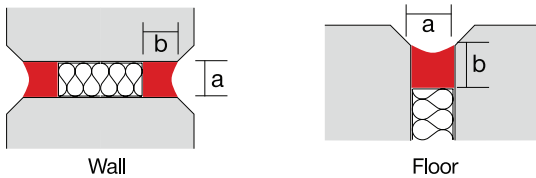
Cartridge volume = 310 ml (CP 601S)

a = Joint width in mm

b = Sealant depth in mm

Linear metre per cartridge = $\frac{\text{Cartridge volume in ml}}{a \times b}$

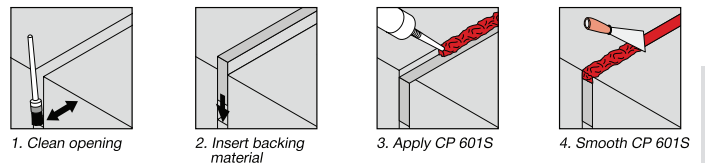
e.g. a floor 50mm wide with product depth of 10mm; with 310ml cartridge
Therefore linear metres per cartridge = $310 / (50 \times 15) = 0.41$ metre per cartridge for one side of the floor



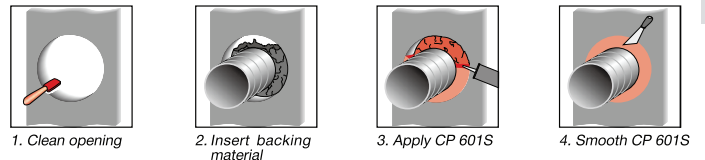
Joint width (mm)	0-15	16-100
Sealant depth (mm)	6	15

Application Procedure

Joint installation



Pipe installation (non-combustible pipes only)



Order Now



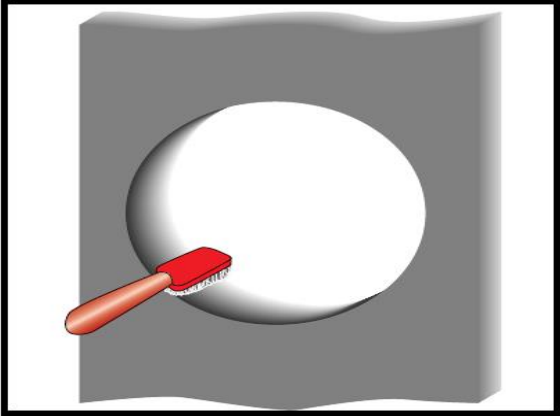
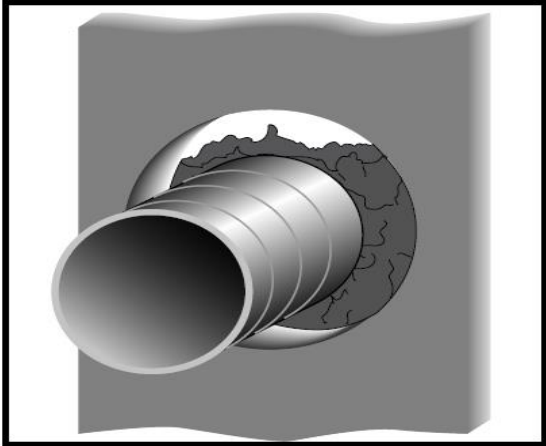
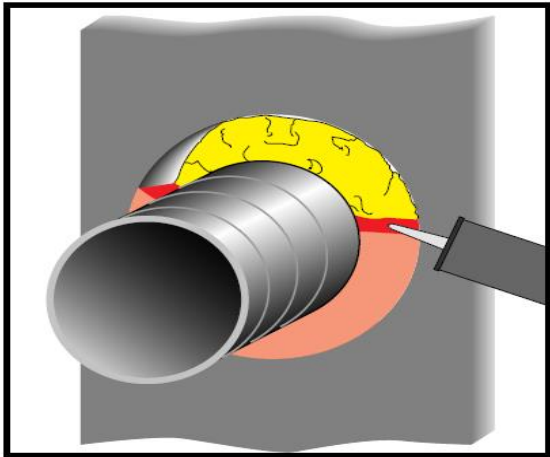
Ordering designation	Colour	Volume per unit	Packaging	Sales pack quantity	Item number
CP 601S 310ML grey	Grey	310 ml	Cartridge	1 pc	310635
CP 601S 600ML grey	Grey	600 ml	Foil pack	1 pc	312111 ¹⁾
CP 601S 310ML white	White	310 ml	Cartridge	1 pc	310633
CP 601S 600ML white	White	600 ml	Foil pack	1 pc	310637 ¹⁾

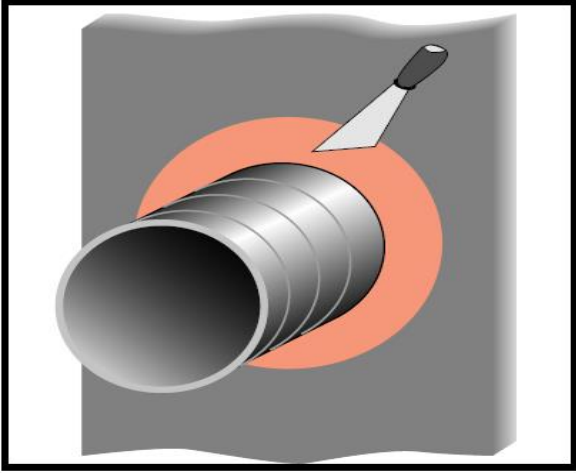
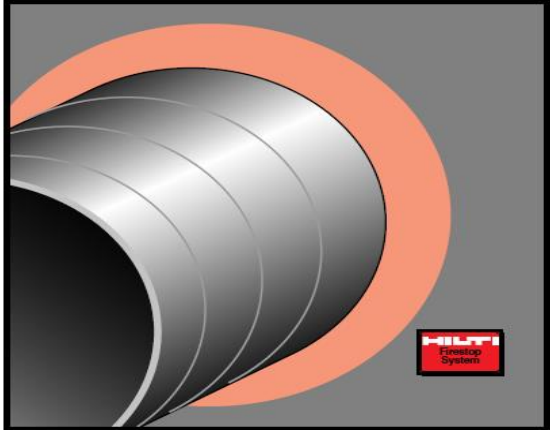
¹⁾ For detailed stock availability and lead time information please contact your Hilti representative.

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

Customer Hotline: Hong Kong 8228 8118, Macau 00800 8228 8118 Email: hksales@hilti.com

Subject: Method Statement of CP 601S for Penetration Seal.
Material: CP 601S firestop sealant
Accessory: Hilti Dispenser CFS-DISP or Hilti Dispenser CS 270-P1 or equivalent.

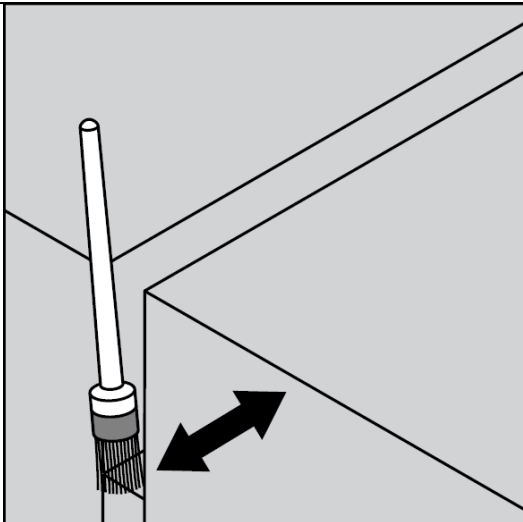
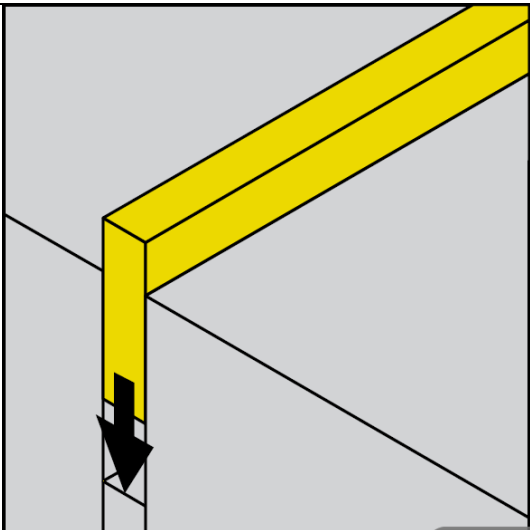
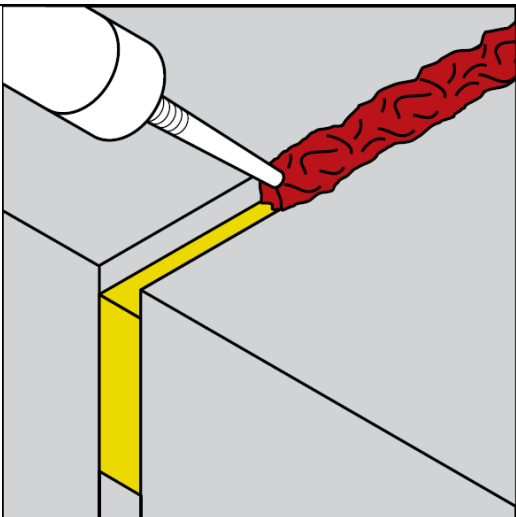
Setting Operation								
1	Clean the opening. Surfaces to which CP 601S will be applied should be cleaned of loose debris, dirt, oil, wax and grease. The surface should be moisture and frost free.							
2	Insert the required fill of mineral wool and backer.							
3	Apply firestop CP 601S over backer. <table><tr><td>Joint width (mm)</td><td>0-15</td><td>16-100</td></tr><tr><td>Sealant thickness (mm)</td><td>6</td><td>15</td></tr></table>	Joint width (mm)	0-15	16-100	Sealant thickness (mm)	6	15	
Joint width (mm)	0-15	16-100						
Sealant thickness (mm)	6	15						

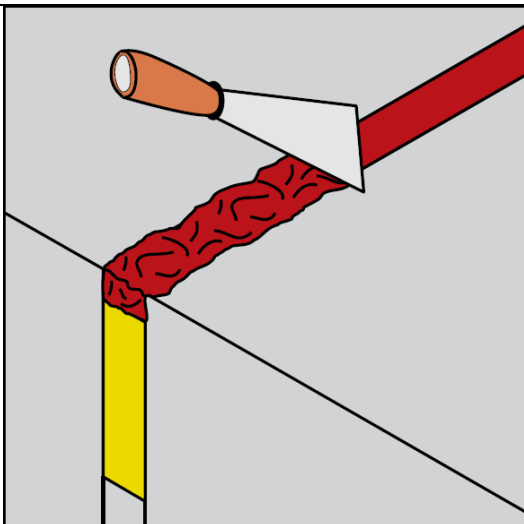
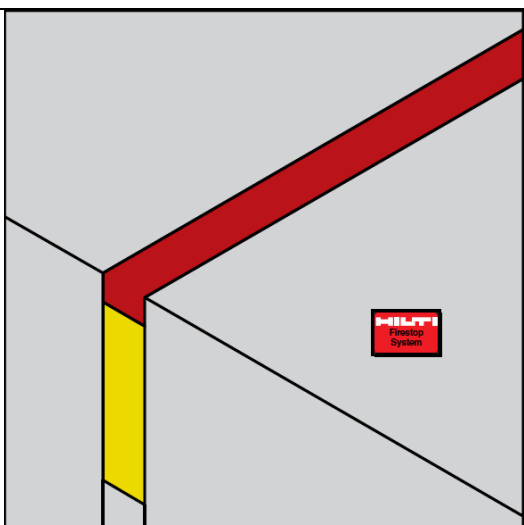
4	Smooth the firestop sealant with a trowel before the skin forms. Once cured, CP 601S can only be removed mechanically.	
5	For maintenance reasons, a penetration seal could be permanently marked with an identification plate. In such a case, mark the Identification plate and fasten it in a visible position next to the seal.	

Safety precautions:

- Never use in areas immersed in water
- Keep out of reach of children
- Read the Material Safety Data Sheet
- Eyes and hands must be suitably protected
- Avoid contact with eyes/skin
- Only use in well ventilated areas

Subject: Method Statement of CP 601S for Linear Joint Seal
Material: CP 601S firestop sealant
Accessory: Hilti Dispenser CFS-DISP or Hilti Dispenser CS 270-P1 or equivalent.

Setting Operation									
1	Clean the opening. Surfaces to which CP 601S will be applied should be cleaned of loose debris, dirt, oil, wax and grease. The surface should be moisture and frost free.								
2	Insert fill of mineral wool or backing material (if required)								
3	Apply CP 601S over the backing material . <table><tr><td>Joint width (mm)</td><td>0-15</td><td>16-100</td></tr><tr><td>Sealant thickness (mm)</td><td>6</td><td>15</td></tr></table>	Joint width (mm)	0-15	16-100	Sealant thickness (mm)	6	15		
Joint width (mm)	0-15	16-100							
Sealant thickness (mm)	6	15							

4	Smooth CP 601S using a trowel before the skin forms. It can only be removed mechanically once it is cured.	
5	For maintenance reasons, a penetration seal would 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	

Safety precautions:

- Never use in areas immersed in water
- Keep out of reach of children
- Read the Material Safety Data Sheet
- Eyes and hands must be suitably protected
- Avoid contact with eyes/skin
- Only use in well ventilated areas



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-FRT053

試件名稱： CP 601S Linear joint wall

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 05 月 27 日

複檢日期： 2028 年 05 月 27 日



檢測報告

No. 2025-FRT053

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)送檢的線性連接密封件之耐火性能進行分級。按送檢單位要求，線性連接密封件之耐火性能需要滿足 BS EN 13501-2：2016 的 EI 240-V-X-W100 等級要求。

2 試件資料

試件名稱	CP 601S Linear joint wall
送檢單位名稱	喜利得(香港)有限公司 (HILTI (HONG KONG) LIMITED)
試件製造商	Wacker, Hanns-Seidel-Platz 4, 81737 München
試件產地	德國

測試試件為一個線性連接密封件。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-053 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，對線性連接密封件“CP 601S Linear joint wall”的耐火性能進行分級：

檢測報告編號	TEED-2025-FRT-053
檢測日期	2025 年 04 月 26 日
報告日期	2025 年 05 月 27 日



4 測試結果

4.1 檢測標準：歐洲標準 BS EN 1366-4：2021《服務設施的防火性能測試 - 第4部分：線性連接密封件》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	240 分鐘 (未失效)
	縫隙測量	240 分鐘 (未失效)
	點燃棉墊	240 分鐘 (未失效)
耐火隔熱性 (I)：	密封件最高溫度	240 分鐘 (未失效)
	密封件接縫最高溫度	240 分鐘 (未失效)

5 性能分級

依據 BS EN 13501-2：2016 的條款 7.5，對線性連接密封件“CP 601S Linear joint wall”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 240-V-X-W100 等級等級要求。

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-053

試件名稱： CP 601S Linear joint wall

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 05 月 27 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	CP 601S Linear joint wall		
送檢單位名稱	喜利得(香港)有限公司 (HILTI (HONG KONG) LIMITED)		
收樣編號	FS-250426-01		
試件特徵描述	試件外觀：線性連接密封件，外觀完好 試件數量：1 件		
試件型號規格	防火填縫尺寸：2640mm (H) × 100mm (W) 防火填縫厚度：150mm		
試件製造商	Wacker, Hanns-Seidel-Platz 4, 81737 München	試件產地	德國
送樣日期	2025 年 04 月 22 日		
檢測項目	線性連接密封件耐火性能		
檢測依據	BS EN 1366-4：2021《服務設施的防火性能測試 - 第 4 部分：線性連接密封件》 BS EN 1363-1：2020《防火性能測試（一般原則）》		
檢測日期	2025 年 04 月 26 日		

TEED-2025-FRT-053

第2頁，共 29 頁





檢測結果	依據 BS EN 1366-4:2021《服務設施的防火性能測試 - 第4部分：線性連接密封件》，經檢測後，該線性連接密封件檢測結果如下：		
	持續火焰	240 分鐘 (未失效)	
	耐火完整性 (E)：	縫隙測量	240 分鐘 (未失效)
		點燃棉墊	240 分鐘 (未失效)
	耐火隔熱性 (I)：	密封件最高溫度	240 分鐘 (未失效)
		密封件接縫最高溫度	240 分鐘 (未失效)
簽發日期：2025 年 05 月 27 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-053

第3頁，共 29 頁





1 檢測目的

- 1.1 按照送檢單位要求，依據歐洲標準 BS EN 1366-4：2021《服務設施的防火性能測試 - 第4部分：線性連接密封件》，檢測一個線性連接密封件之耐火性能。

2 試件綜述

- 2.1 測試試件為一個線性連接密封件，主要由 CP 601S Linear joint wall 和岩棉所組成，按照送檢單位要求，防火填縫的尺寸被設定為：2640mm (H) × 100mm (W) × 150mm (Thk.)，連接密封件的安裝方法是先在填縫內填充厚度為 120mm 的岩棉(密度：60kg/m³)，再在填縫的向火面及背火面刷塗厚度為 15mm 的 CP 601S 所組成。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 04 月 22 日送樣至本實驗室及進行安裝，並於 2025 年 04 月 26 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 2640mm (H) × 100mm (W) 的連接縫密封件。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 24°C 至 27°C 之間，相對濕度在 86%至 100%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 $(100 \pm 50)\text{mm}$ ，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 1366-4 : 2021 及 BS EN 1363-1 : 2020，設定試件中心位置的平面壓力值為 15Pa。在測試開始的 5 分鐘後，試件中心位置的平面壓力值維持在 $15 \pm 5\text{Pa}$ ；在測試開始的 10 分鐘後，試件中心位置的平面壓力值維持在 $15 \pm 3\text{Pa}$ 。
- 3.4 試件背火面設有 7 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，試件背火面密封件的最高溫度由熱電偶 TC1 至 TC3 測量，背火面密封件接縫位置的最高溫度由 TC4 至 TC7 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 實際爐體內試件中心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；

4.1.4 試件的變形量量度位置及變形量數值，分別見圖 8 及表 4；

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 5，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 24.6°C。檢測期間，周圍環境溫度為 23.0°C 至 25.6°C。

4.5 在送檢單位的同意下，在 240 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 1366-4：2021 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 1366-4：2021《服務設施的防火性能測試 - 第 4 部分：線性連接密封件》，經檢測後，該線性連接密封件檢測結果如下：

耐火完整性 (E)：	持續火焰	240 分鐘 (未失效)
	縫隙測量	240 分鐘 (未失效)
	點燃棉墊	240 分鐘 (未失效)
耐火隔熱性 (I)：	密封件最高溫度	240 分鐘 (未失效)
	密封件接縫最高溫度	240 分鐘 (未失效)

* 在送檢單位的同意下，在 240 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歐洲標準 BS EN 1366-4：2021 的條款 13 的直接應用範圍。如果需要透過計算去確定特定的性能分級的直接應用範圍，必須要提供計算方法及計算結果。





附錄 A

試件構造說明及附圖

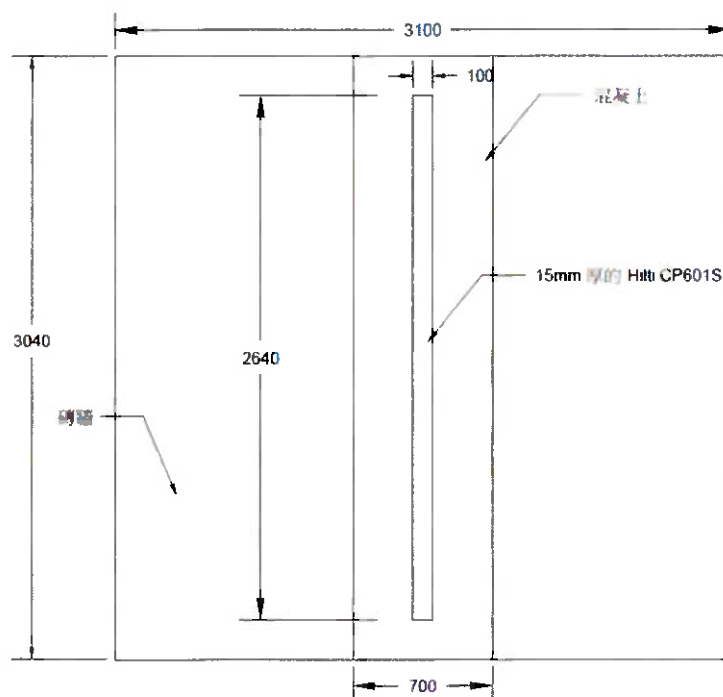


圖 1 測試試件之向火面圖

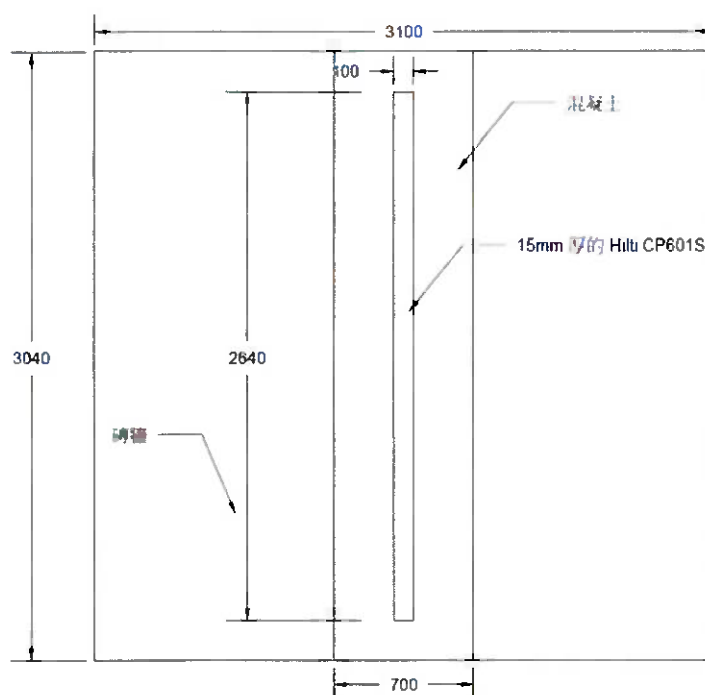


圖 2 測試試件之背火面圖



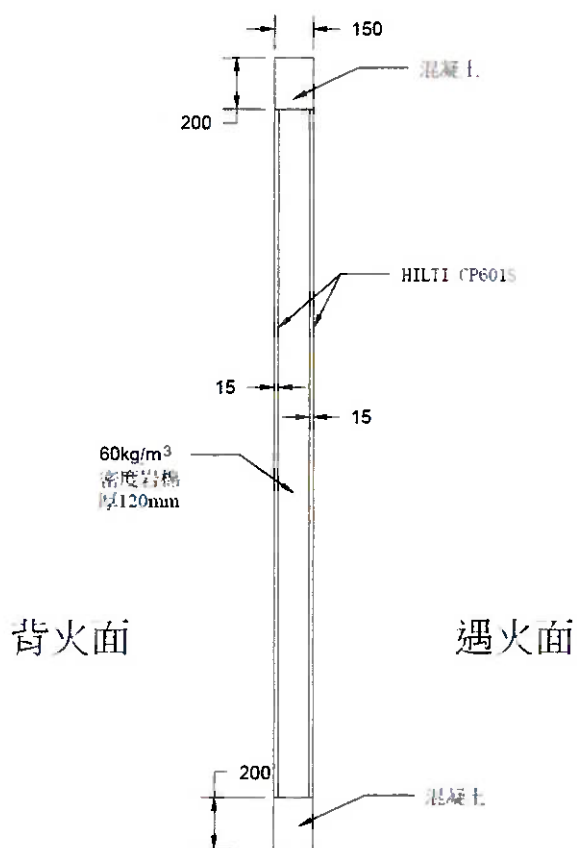


圖 3 測試試件之縱剖面圖





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.	CP 601S Linear joint wall 防火填縫	尺寸：2640mm (H) × 100mm (W) × 150mm (Thk.) 由 120mm (厚)的岩棉填充，再在向火面及背火面刷塗 15mm (厚)的 CP 601S Linear joint wall 所組成。
2.	Firestop Sealant	製造商：Wacker, Hanns-Seidel-Platz 4, 81737 München 品牌：Hilti 型號：CP 601S 產地：德國 密度：約 1.4 g/cm ³ 體積收縮率（固化後）：0 – 5 % 容許變形：±25% 表皮形成時間：約 15 分鐘 固化速度：約 2mm/3 天 刷塗厚度：15mm 刷塗位置：填充岩棉後，再在向火面及背火面刷塗厚度 15mm 的 CP 601S
3.	岩棉	製造商：ROCKWOOL Firesafe Insulation (Guangzhou) Co., Ltd 品牌：ROCKWOOL 型號：ThermalRock S (TR-S60) 產地：Qingyuan China





		尺寸：1200mm (H) × 600mm (W) × 50mm (Thk.) 密度：60kg/m ³ 填充位置：把岩棉填充於縫隙中間，總填充厚度為 120mm
--	--	--





附錄 B
測試數據

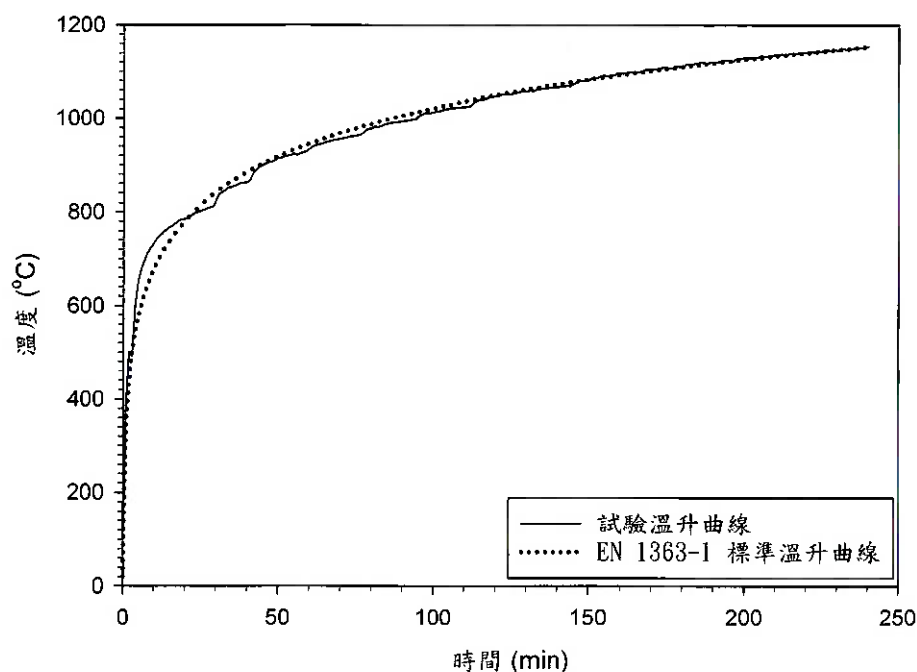


圖 4 平均爐溫與標準(溫度/時間)曲線圖

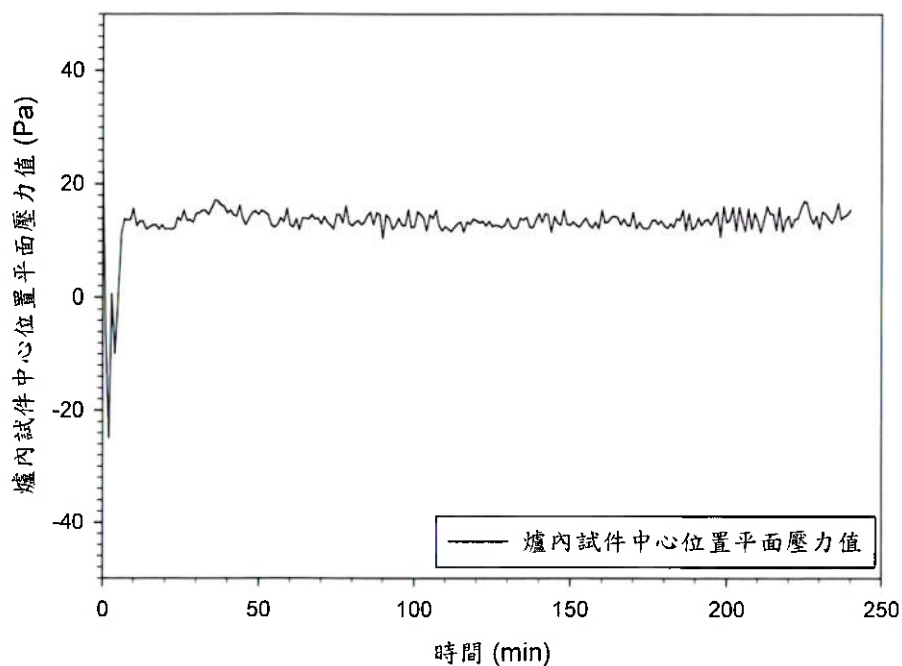


圖 5 爐內密封件中心平面壓力值(壓力/時間)曲線圖

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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	84.0
1	349.2	408.5
2	444.5	500.6
3	502.3	492.5
4	543.9	601.7
5	576.4	653.3
6	603.1	680.3
7	625.8	696.7
8	645.5	712.1
9	662.8	723.3
10	678.4	732.2
12	705.4	748.6
14	728.3	762.2
16	748.2	771.6
18	765.7	782.0
20	781.4	785.1
22	795.6	792.6
24	808.5	799.1
26	820.5	804.6
28	831.5	810.5
30	841.8	824.6
35	864.8	851.9
40	884.7	862.5
45	902.3	899.3
50	918.1	914.2
55	932.3	923.5
60	945.3	933.8
65	957.3	948.0
70	968.4	955.9
75	978.7	962.8
80	988.4	977.3
85	997.4	988.2
90	1006.0	993.8
95	1014.1	1004.2
100	1021.8	1013.4
105	1029.1	1020.8
110	1036.0	1024.3
115	1042.7	1039.8
120	1049.0	1046.4

* 測試過程中，實際爐溫控制在標準允許的公差範圍之內



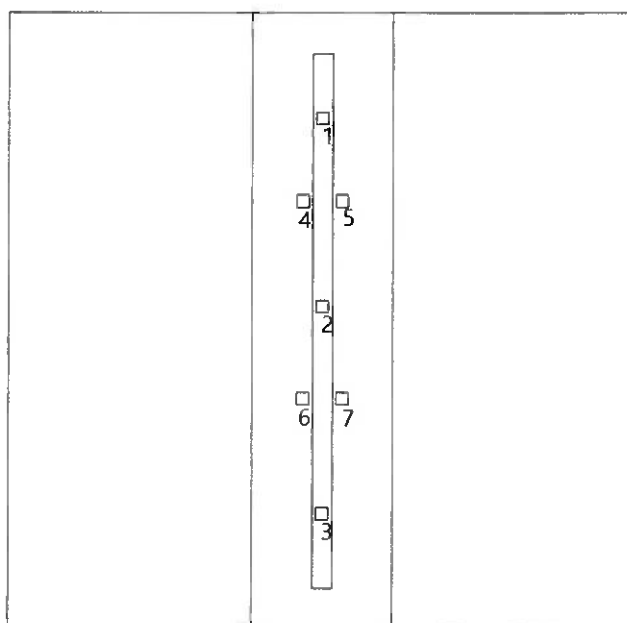


表2 平均爐溫與標準溫度之比較 (續)

時間 (min)	標準爐內溫度(°C)	爐內平均溫度(°C)
130	1061.0	1056.7
140	1072.1	1066.0
150	1082.4	1080.4
160	1092.1	1095.4
170	1101.2	1103.9
180	1109.7	1110.4
190	1117.8	1120.4
200	1125.5	1129.9
210	1132.8	1136.2
220	1139.8	1140.2
230	1146.4	1144.9
240	1152.8	1154.0

* 測試過程中，實際爐溫控制在標準允許的公差範圍之內





□ : 最高溫升熱電偶

圖 6 測試試件之背火面熱電偶位置圖

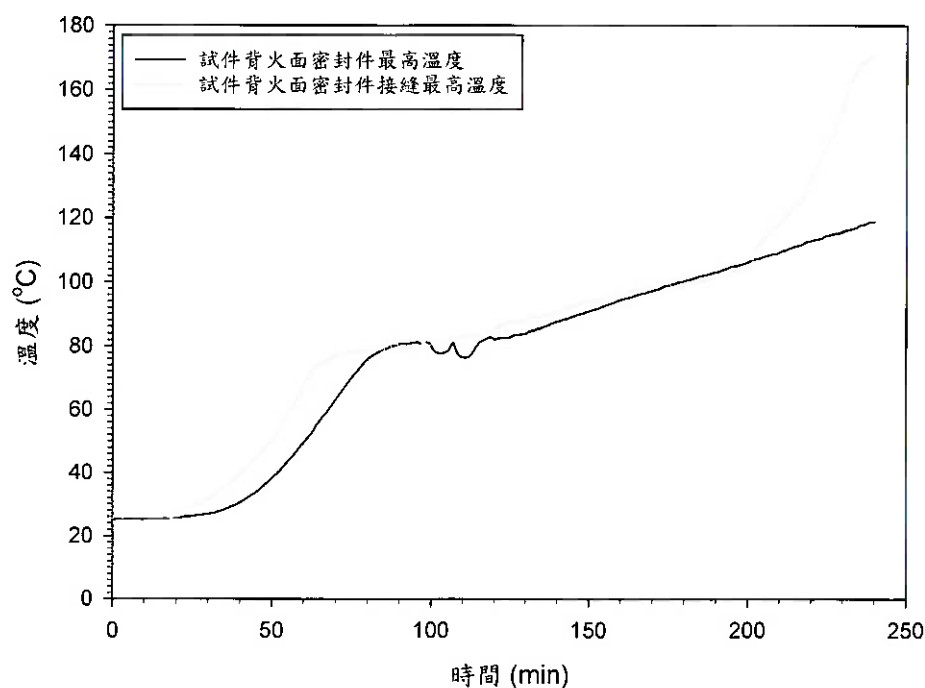


圖 7 測試試件之背火面溫度/時間曲線圖



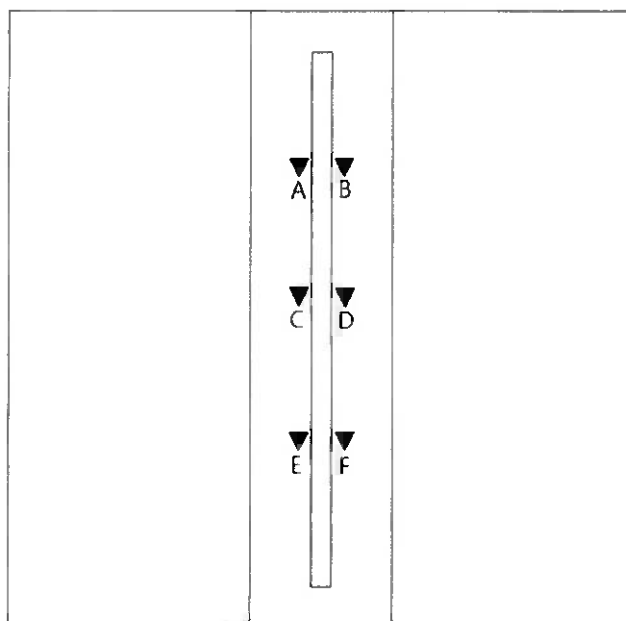
表3 測試試件之背火面單點溫度

時間 (min)	單點熱電偶溫度 (°C)						
	1	2	3	4	5	6	7
0	25.2	25.3	25.3	25.5	25.7	25.8	25.8
5	25.3	25.3	25.3	25.5	25.7	25.9	25.8
10	25.2	25.3	25.2	25.5	25.7	25.7	25.7
15	25.2	25.4	25.1	25.6	25.7	25.7	25.6
20	25.6	25.6	25.2	27.6	28.2	27.7	27.4
25	26.1	26.0	25.4	29.0	30.9	29.3	28.6
30	26.9	27.2	26.0	31.5	38.3	31.7	30.3
35	28.1	28.8	26.9	35.0	51.5	35.0	33.2
40	30.4	31.7	28.4	39.5	77.9	38.8	37.3
45	33.6	36.0	31.4	44.9	83.4	43.6	42.1
50	38.1	41.4	35.7	49.8	78.1	48.9	48.1
55	43.6	47.3	41.0	58.0	82.6	55.2	51.5
60	49.5	52.9	46.3	67.1	75.7	61.1	56.0
65	56.3	58.6	53.3	74.2	55.1	66.3	60.3
70	63.0	63.4	60.1	76.9	55.2	70.9	61.5
75	69.9	67.6	66.8	78.2	56.2	74.3	62.4
80	75.7	71.3	71.6	78.4	49.4	77.3	66.0
85	78.9	74.0	75.1	79.3	78.9	79.0	69.1
90	80.6	75.8	76.5	79.7	70.4	79.4	70.7
95	81.1	76.9	76.7	80.1	72.6	79.8	72.3
100	80.2	77.6	77.4	80.4	67.1	80.0	73.4
105	78.3	78.7	78.4	81.5	71.6	87.6	85.0
110	76.4	79.1	78.7	83.3	70.6	90.2	85.8
115	80.9	79.7	78.9	83.8	68.9	91.1	87.3
120	82.1	79.7	79.0	84.9	66.7	92.3	88.6
130	83.9	79.7	78.6	87.8	76.2	93.6	90.9
140	87.5	81.1	79.7	90.5	77.7	96.4	92.9
150	90.8	82.1	80.8	93.7	79.1	98.7	94.2
160	94.4	82.6	81.5	95.8	81.9	101.9	95.9
170	97.2	81.5	81.7	98.7	90.4	105.3	98.3
180	100.4	81.9	81.4	98.8	96.8	108.2	99.5
190	103.1	81.2	80.9	101.5	99.1	111.5	101.6
200	106.2	81.6	84.0	104.6	102.4	114.5	100.9
210	109.4	83.9	87.3	117.7	109.9	124.7	105.0
220	113.0	86.2	91.0	131.3	111.8	135.4	115.5
230	115.7	89.1	94.7	153.0	116.3	148.8	124.7
240	118.7	91.8	97.5	170.8	119.8	154.7	136.7

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▼: 變形量測量點

圖 8 測試試件之變形量位置圖

表 4 測試試件之背火面變形量

時間 (min)	位置	變形量 (mm)					
		A	B	C	D	E	F
0		0	0	0	0	0	0
30		0	0	0	0	0	0
60		0	0	0	0	0	0
90		0	0	0	0	0	0
120		0	0	0	0	0	0
150		0	0	0	0	0	0
180		0	0	0	0	0	0
210		0	0	0	0	0	0
240		0	0	0	0	0	0

注：“+”代表向內爐內凹陷，“-”代表向爐外凸出





附錄 C

觀察情況

表 5 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 24.6°C。
0:15	試件背火面沒有明顯變化。
0:30	試件背火面開始有水滲出。
0:45	試件背火面持續有水滲出。
1:00	試件背火面沒有明顯變化。 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	試件背火面水跡開始蒸發。
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。 試件之耐火完整性及耐火隔熱性仍能符合標準。
2:15	試件背火面沒有明顯變化。
2:30	試件背火面沒有明顯變化。
2:45	試件背火面沒有明顯變化。
3:00	試件背火面水跡完全蒸發。 試件之耐火完整性及耐火隔熱性仍能符合標準。
3:15	試件背火面沒有明顯變化。
3:30	試件背火面沒有明顯變化。
3:45	試件背火面沒有明顯變化。
4:00	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 26)。

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附錄 D

圖片



圖 9 測試前試件向火面



圖 10 測試前試件背火面



圖 11 測試 15min 後試件背火面



圖 12 測試 30min 後試件背火面





圖 13 測試 45min 後試件背火面



圖 14 測試 60min 後試件背火面



圖 15 測試 75min 後試件背火面



圖 16 測試 90min 後試件背火面





圖 17 測試 105min 後試件背火面



圖 18 測試 120min 後試件背火面

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圖 19 測試 135min 後試件背火面



圖 20 測試 150min 後試件背火面





圖 21 測試 165min 後試件背火面



圖 22 測試 180min 後試件背火面





圖 23 測試 195min 後試件背火面

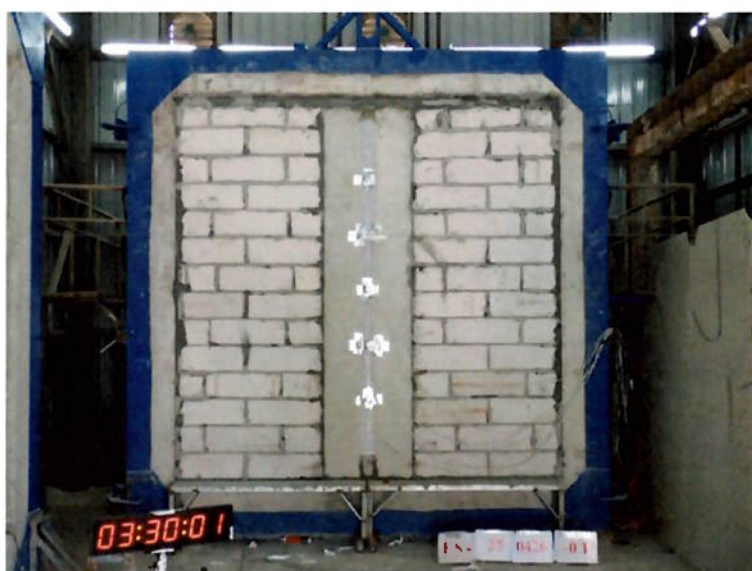


圖 24 測試 210min 後試件背火面





圖 25 測試 225min 後試件背火面



圖 26 測試 240min 後試件背火面



圖 27 測試後試件向火面

-----報告結束-----

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Weck Laboratories, Inc.

Environmental and Analytical Services - Since 1964

Report Date: Tuesday, December 3, 2002
Received Date: Tuesday, November 12, 2002
Received Time: 12:06 pm

Turnaround Time: Normal

Client: Hilti Incorporated
5400 South 122nd E. Avenue
Tulsa, OK 74146

Phone: (918) 252-6704
FAX: (918) 252-6520

Attn: Jerry Metcalf

Project: CP 601 S VOC Content

P.O.#: 17381538

Certificate of Analysis

Work Order No: 2111218-01

Sample ID: CP 601 S. Firestop Sealant

Matrix: Solid

Sampled By: Client

Sampled: 12-Nov-02 00:00

Sample Note:

Analyte	Result	Qualifiers	Units	Dilution	Reporting	Method	Prepared	Analyzed	Batch
					Limit				
Density by ASTM D1475.....	1.4019		g/ml	1		EPA 24	22-Nov-02	26-Nov-02	ac W212070
Total VOC.....	3.00		g/L	1	1.00	EPA 24	22-Nov-02	26-Nov-02	ac W212070
VOC less Water.....	3.00		g/L	1	1.00	EPA 24	22-Nov-02	26-Nov-02	ac W212070
Volatile Content by ASTM D2369.....	0.190	J	%w/w	1	1.00	EPA 24	22-Nov-02	26-Nov-02	ac W212070
Water Content by GC.....	ND		%w/w	1	1.00	EPA 24	22-Nov-02	26-Nov-02	ac W212070

Case Narrative:



[Signature]
Authorized Signature

ELAP # 1132
LACSD # 10143

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Notes:

The Chain of Custody document is part of the analytical report.

Any remaining sample(s) for testing will be disposed of one month from the final report date unless other arrangements are made in advance.

All results are expressed on wet weight basis unless otherwise specified.

ND=Not detected, below the reporting limit.

Sub=Subcontracted analysis, original report enclosed.

Flags for Data Qualifiers:

J = Detected but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag).

Lab#: 2111218

Page 1 of 1

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Governo da Região Administrativa Especial de Macau

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文件編號
Inf. n.º 19 06 2025
日期
Data

核閱
Visto

於
Em 26 / 06 / 2025
防火廳代廳長
O Chefe do D.P.I. Substª

意見書

事由：申請審批防火填充物料
參件編號：--

28/05/2025 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.	CP601S Linear joint wall	Wacker, Hanns-Seidel-Platz 4, 81737 München

1.1 產品規格：

防火填縫尺寸：2640mm(H) x 100mm(W)

防火填縫厚度：150mm

1.2 根據遞交的資料有以下分析結果：

1.2.1 “CP601S Linear joint wall”，製造商：Wacker, Hanns-Seidel-Platz 4, 81737 München，經 BS EN 1366-4:2021 及 BS EN 1363-1:2020 檢驗，檢測結果如下：

耐火完整性(E)：	持續火焰	240 分鐘(未失效)
	縫隙測量	240 分鐘(未失效)
	點燃棉墊	240 分鐘(未失效)
耐火隔熱性(I)：	密封件最高溫度	240 分鐘(未失效)
	密封件接縫最高溫度	240 分鐘(未失效)

1.2.2 性能分級：依據 BS EN 13501-2:2016 的條款 7.5 對線性連接密封件“CP601S Linear joint wall”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 240-V-X-W100 等級要求；

1.2.3 上述結果只反映與報告(2025-FRT053)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，本廳對此線性連接密封件的耐火性能：滿足 BS EN 13501-2:2016 的 EI 240-V-X-W100 等級要求沒有異議。

葉嘉裕
首席消防員

CB9114_DPI7434_C-0058



Certificate of Compliance

This certificate is issued for the following firestopping products:

FS-ONE High Performance Intumescent Firestop Sealant

CP680 Cast-In Firestop Device

CP680-N Cast-In Firestop Device

CP680-P Cast-In Firestop Device

CP682 Cast-In Firestop Device

CP 648E Wrap Strip

CP617 Firestop Putty Sticks

CP601 S Elastomeric Firestop Sealant

CP636 Firestop Mortar

CP 604 Self Leveling Firestop Sealant

CP611A High Performance Intumescent Firestop Sealant

CP 643N Firestop Collar

CP606 Flexible Firestop Sealant

CP-672 Firestop Joint Spray

CP620 Firestop Foam

CP680-M Cast-In Firestop Device

CP 675T Firestop Board

CP618 Firestop Putty Sticks

CP619T Putty Roll

CP670 Firestop Board

CP673 Firestop Coating

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



Member of the FM Global Group

Issued: June 30, 2016

Certificate of Compliance

Certificate Number **20060214-R13240**
Report Reference **2006 February 14**
Issue Date **2006 February 14**

Page 1 of 1



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
CP601S**

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


Standard(s) for Safety: **ANSI/UL 1479, ANSI/UL 2079, CAN/ULC-S115-05**


Additional Information: **CP601S Sealant for use in Joint Systems and CP601S Sealant 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 : 1 April 2025
Ref. : 036/FP/SC/25

Subject : Country of Origin- Hilti CP601S Firestop Silicone Sealant

Dear Sir / Madam,

Enclosed please find the information of Hilti CP601S Firestop Silicone Sealant.

Brand Name : Hilti

Model Name : Hilti CP601S Firestop Silicone Sealant

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 : 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,



Spencer Cheung
Head of Product Leadership Strategy

July 30, 2014

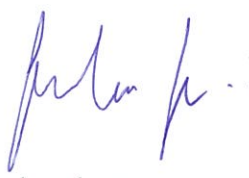
To Whom It May Concern:

Re: Hilti CP 601S Elastomeric Firestop – LEED Info.

- The Hilti CP 601S Elastomeric Firestop is manufactured in Germany.
- The package of Hilti CP 601S Elastomeric Firestop can be completely recycled.
- There is no recycled content in Hilti CP 601S Elastomeric Firestop and it cannot be recycled.
- The Hilti CP 601S Elastomeric Firestop does not share any rapidly renewable materials.
- The VOC content of Hilti CP 601S Elastomeric Firestop is 3 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,



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 | **F** +852-2954 1751

www.hilti.com.hk

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, CP601S Elastic Firestop Sealant Precast Facade Joint 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

CFS-S SIL; CP 601S

Safety Data Sheet

according to the United Nations GHS (Rev. 4, 2011)

Issue date: 08/02/2021

Revision date: 08/02/2021

Supersedes: 23/10/2017

Version: 7.3

SECTION 1: Identification

1.1. GHS Product identifier

Product form	Mixture
Trade name	CFS-S SIL; CP 601S
Type of product	Sealants
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	Adhesives, sealants
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1.4. Supplier's details

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
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SECTION 2: Hazard identification

2.1. Classification of the substance or mixture

Classification according to the United Nations GHS

Not classified

2.2. GHS Label elements, including precautionary statements

Labelling according to the United Nations GHS

2.3. Other hazards which do not result in classification

Other hazards not contributing to the classification	Product hydrolyses under formation of methanol (CAS no. 67-56-1). Methanol is toxic by inhalation, in contact with skin and if swallowed. Methanol causes damage to organs. Methanol is highly flammable.
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SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

CFS-S SIL; CP 601S

Safety Data Sheet

according to the United Nations GHS (Rev. 4, 2011)

3.2. Mixtures

Name	Product identifier	%	Classification according to the United Nations GHS
bis(ethyl acetoacetato-O1',O3)bis(2-methylpropan-1-olato)titanium	(CAS-No.) 83877-91-2	< 3	Flammable liquids, Category 3, H226 Skin corrosion/irritation, Category 2, H315 Serious eye damage/eye irritation, Category 1, H318 Specific target organ toxicity — Single exposure, Category 3, Narcosis, H336 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 general	Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
First-aid measures after inhalation	Get medical advice/attention if you feel unwell. Allow affected person to breathe fresh air. Allow the victim to rest.
First-aid measures after skin contact	Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. If skin irritation occurs: Get medical advice/attention.
First-aid measures after eye contact	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persists.
First-aid measures after ingestion	Drink plenty of water. Do NOT induce vomiting. Get immediate medical advice/attention. Rinse mouth. Obtain emergency medical attention.

4.2. Most important symptoms/effects, acute and delayed

Symptoms/effects	Not expected to present a significant hazard under anticipated conditions of normal use.
Potential adverse human health effects and symptoms	Based on available data, the classification criteria are not met.

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

Methanol (CAS 67-56-1) is readily and rapidly absorbed at all exposure routes and is toxic by all routes. Methanol may cause irritation of the mucosa, as well as nausea, vomiting, headaches, vertigo and visual disorders, including blindness (irreversible damage to the optic nerve), acidosis, spasms, narcosis and coma. There may be a delay in the onset of these effects after exposure. Further toxicology information in section 11 must be observed.

SECTION 5: Fire-fighting measures

5.1. Suitable extinguishing media

Suitable extinguishing media	Water spray. Carbon dioxide. dry chemical powder, alcohol-resistant foam, carbon dioxide (CO2). Sand. Foam. Dry powder.
Unsuitable extinguishing media	Do not use a heavy water stream.

5.2. Specific hazards arising from the chemical

Hazardous decomposition products in case of fire	Carbon dioxide. Carbon monoxide.
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5.3. Special protective actions for fire-fighters

Firefighting instructions	Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire fighting water from entering the environment.
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CFS-S SIL; CP 601S

Safety Data Sheet

according to the United Nations GHS (Rev. 4, 2011)

Protection during firefighting

Self-contained breathing apparatus. Complete protective clothing. Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Protective equipment

Wear recommended personal protective equipment.

Emergency procedures

Avoid contact with skin and eyes. Do not breathe dust/fume/gas/mist/vapours/spray. Do not touch or walk on the spilled product. Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment

For further information refer to section 8: "Exposure controls/personal protection". Equip cleanup crew with proper protection.

Emergency procedures

Ventilate area.

6.2. Environmental precautions

Avoid release to the environment. Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and materials for containment and cleaning up

For containment

Absorb spilled material with sand or earth. Collect spillage.

Methods for cleaning up

Take up mechanically (sweeping, shovelling) and collect in suitable container for disposal. Clean contaminated surfaces with an excess of water. On land, sweep or shovel into suitable containers. Minimise generation of dust. Store away from other materials.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling

Wear personal protective equipment. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapour.

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

Keep cool. Store in a dry place. Keep only in the original container in a cool, well ventilated place away from : Keep container closed when not in use.

Incompatible products

Strong bases. Strong acids.

Incompatible materials

Sources of ignition. Direct sunlight.

Storage temperature

5 – 25 °C

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Additional information

The product has a pasty consistency. Exposure limit values for respirable dusts are not relevant for this product.

8.2. Appropriate engineering controls

Environmental exposure controls

Avoid release to the environment.

Other information

Do not eat, drink or smoke when using this product. Do not eat, drink or smoke during use.

CFS-S SIL; CP 601S

Safety Data Sheet

according to the United Nations GHS (Rev. 4, 2011)

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

Hand protection

Protective gloves. EN 374. The permeation time is not the maximum wearing time! Generally speaking, it must be reduced. Contact with either mixtures of substances or different substances may shorten the protective function's effective duration. Wear protective gloves.

Type	Material	Permeation	Thickness (mm)	Penetration	Standard
Disposable gloves	Butyl rubber	6 (> 480 minutes)	>0.3		EN ISO 374
Disposable gloves	Nitrile rubber (NBR)	1 (> 10 minutes)	>0.4		EN ISO 374

Eye protection

Chemical goggles or safety glasses

Type	Use	Characteristics	Standard
Safety glasses			EN 166, EN 170

Skin and body protection

Wear suitable protective clothing

Respiratory protection

No respiratory protection needed under normal use conditions. Where exposure through inhalation may occur from use, respiratory protection equipment is recommended. Wear appropriate mask

Device	Filter type	Condition	Standard
Full face mask	ABEK		EN 136

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	Pasty
Molecular mass	Not determined
Colour	Various.
Odour	slight.
Odour threshold	Not determined
Melting point	Not applicable
Freezing point	Not available
Boiling point	Not available
Flammability (solid, gas)	Not applicable, 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	400 °C
Decomposition temperature	Not available
pH	≈ Not applicable

CFS-S SIL; CP 601S

Safety Data Sheet

according to the United Nations GHS (Rev. 4, 2011)

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	1.5 – 1.54 g/cm ³
Relative density	Not available
Relative vapour density at 20 °C	Not applicable
Solubility	insoluble 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)

Additional information	Explosion limits for released methanol: 5.5 - 44%(V)
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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. Not established.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use. Not established.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7). Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials

Strong acids. Strong bases.

10.6. Hazardous decomposition products

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

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
Additional information	Based on available data, the classification criteria are not met

CFS-S SIL; CP 601S	
LD50 oral rat	> 2000 mg/kg

bis(ethyl acetoacetato-O1',O3)bis(2-methylpropan-1-olato)titanium (83877-91-2)	
LD50 oral rat	> 5000 mg/kg bodyweight (Rat, Oral)

CFS-S SIL; CP 601S

Safety Data Sheet

according to the United Nations GHS (Rev. 4, 2011)

Skin corrosion/irritation	Not classified Based on available data, the classification criteria are not met pH: ≈ Not applicable
Serious eye damage/irritation	Not classified (Based on available data, the classification criteria are not met) pH: ≈ Not applicable
Respiratory or skin sensitisation	Not classified Based on available data, the classification criteria are not met
Germ cell mutagenicity	Not classified
Carcinogenicity	Not classified
Reproductive toxicity	Not classified
STOT-single exposure	Not classified
STOT-repeated exposure	Not classified
Aspiration hazard	Not classified
Potential adverse human health effects and symptoms	Based on available data, the classification criteria are not met.
Other information	Hydrolysis product / impurity: Methanol (CAS 67-56-1) is readily and rapidly absorbed at all exposure routes and is toxic by all routes. Methanol may cause irritation of the mucosa, as well as nausea, vomiting, headaches, vertigo and visual disorders, including blindness (irreversible damage to the optic nerve), acidosis, spasms, narcosis and coma. There may be a delay in the onset of these effects after exposure.

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

bis(ethyl acetoacetato-O1',O3)bis(2-methylpropan-1-olato)titanium (83877-91-2)	
EC50 Daphnia 1	> 100 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, Reaction product)

12.2. Persistence and degradability

CFS-S SIL; CP 601S	
Persistence and degradability	Silicone content: biologically not degradable. The product of hydrolysis (methanol) is readily biodegradable. . Not established.
bis(ethyl acetoacetato-O1',O3)bis(2-methylpropan-1-olato)titanium (83877-91-2)	
Persistence and degradability	Biodegradability: not applicable.

12.3. Bioaccumulative potential

CFS-S SIL; CP 601S	
Bioaccumulative potential	Not established.
bis(ethyl acetoacetato-O1',O3)bis(2-methylpropan-1-olato)titanium (83877-91-2)	
Bioaccumulative potential	Bioaccumulation: not applicable.

CFS-S SIL; CP 601S

Safety Data Sheet

according to the United Nations GHS (Rev. 4, 2011)

12.4. Mobility in soil

CFS-S SIL; CP 601S	
Mobility in soil	No additional information available
bis(ethyl acetoacetato-O1',O3)bis(2-methylpropan-1-olato)titanium (83877-91-2)	
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
Other information	Avoid release to the environment.

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.
Ecology - waste materials	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



CFS-S SIL; CP 601S

Safety Data Sheet

according to the United Nations GHS (Rev. 4, 2011)

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

SECTION 16: Other information

SDS Major/Minor None
Issue date 08/02/2021
Revision date 08/02/2021
Supersedes 23/10/2017

Section	Changed item	Change	Comments
3		Modified	

Other information None.

Full text of H-statements:	
H226	Flammable liquid and vapour
H315	Causes skin irritation
H318	Causes serious eye damage
H335	May cause respiratory irritation
H336	May cause drowsiness or dizziness

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 601S Firestop Silicone Sealant Job Reference

Year	Project Name	Customer Name	Project type
2022	KIN HENG LONG PLAZA, MACAU	TIN JUN CONSTRUCTION COMPANY LTD	
2022	RUA DE CAMILO PESSANHA 12-12A	SHUNG TAT AIR-CONDITIONING & WATER	
2022	RAMPA DA TAIPA GRANDE 135-275	CSCEC-HAI HOU	
2022	258 EDIF. KIN HENG LONG PLAZA	CONSOLIDATED ENGINEERING	
2023	10 ANDAR A, MACAU	BOTOP ENGINEERING (MACAU) LIMITED	
2023	181A 187 CENTRO COMERCIAL DO GRUPO	CHINA ZHONG JI MECHANICAL INDUSTRY	
2023	ALAMEDA DR. CARLOS D'ASSUMPCAO 180	AN PRO TECH ENGINEERING (MACAU) LTD	
2023	138 TAIPA	FU TIN ENG	
2023	NO 159-207, ALAMEDA	YUNG KEE ELECTRICAL, MECHANICAL AND	
2023	RUA DOIS DO BAIRRO DA AREIA PRET	SAN LUEN YING AIR-CON ENG	
2023	EDIF MACAU FINANCE CENTRE	SHING LUNG CONSTRUCTION &	
2023	EDIF. DYNASTY PLAZA	SUN FOOK KONG - KUN FAI ENGINEERING	
2023	ESTRADA DOS CAVALEIROS, NO.63,	NEW WING WO ENGINEERING	
2023	RUA DE PEQUIM 202A-246	SUN KEI SEK MECHANICAL & ELECTRIC	
2023	RUA DO PADRE ANTONIO 17-27	LITTO (MACAU) ENGINEERING COMPANY	
2023	CENTRAL 5 AMDAR MACAU	COMPANHIA DE CONSTRUCAO E ENG	
2023	RAMPA DA TAIPA GRANDE 135-275	CSCEC-HAI HOU	
2023	49 RUA DO MEIO	TIMSON (MACAO) ELECTRICAL AND	
2024	ALAMEDA DR. CARLOS D'ASSUMPCAO	SHEN ZHUANG (MACAU) ENGINEERING	
2024	ALAMEDA DR. CARLOS D'ASSUMPCAO	ANDAIMES KONG KEI	
2024	RUA DOIS DO BAIRRO DA AREIA PRET	SAN LUEN YING AIR-CON ENG	
2024	45-51 KWOK SHUI ROAD	ATAL BUILDING SERVICES (MACAO) LTD	
2024	AV. MARGINAL FLOR DE LOTUS	CSCEC-HAI HOU	
2024	RUA DOS PESCADORES 166 - 190	TSN DESIGN AND CONSTRUCTION	
2024	#	NENG XIN (MACAU) LTD	
2024	ESTRADA DA BAIA	ANALOGUE BUILDING SERVICES	
2024	ESTRADA DA BAIA	ATAL BUILDING SERVICES (MACAO) LTD	
2024	ESTRADA DA BAIA DE N	HONG XIN VENETIAN A&A	