





E MAN CONSTRUCTION CO. LTD.

裕民建築有限公司

恒基兆業地產有限公司全資附屬公司 A wholly-owned subsidiary of Henderson Land Development Co. Ltd.

MATERIAL SUBMISSION FORM

Project Proposed Residential Development at N.K.I.L. No. 6552, Kai Tak Area 4C, Site 2, Kai Tak, Kowloon
Works Main Contract
Contract No. 19098KL
Ref. No. 19098KL / MS / AR - 263 - GC (Rev. 0)
Date 27-Sep-2022
To / Attn Ronald Lu & Partners (Hong Kong) Ltd. / Mr. Alfred Woo/ Mr. Frederick Chan/ Ms. Magenta Kietkhajornsiri
Subject Material Submission of Vertical Smoke Seal (for Curtain Wall)
Anticipated date of response 10-Oct-2022

We certify that the submission has been checked and is in full compliance with the Specification & Contract Documents, unless otherwise stated in the remarks.

Handwritten signature of Adam Wong

Adam Wong

For and on behalf of E Man Construction Company Limited

Form RLP/MSF

Received by SE / BS
Received by RLP
cc w/e
MARBLE [x] [x] Mr. Gilman Wan/ Mr. Steven Yeung/ Ms. Tammy Yuen/ Mr. Patrick K.S. Lee/ Mr. Marco S.C. Lee/ Mr. Albert Yiu
EDGE [x] [x] Mr. Stanley Chan
CMW [x] [x] Mr. Rick Tong
MME [ ] [ ] Mr. Andy Lee
WTP [ ] [ ] Mr. Alan Pun
MVA [ ] [ ] Mr. Calvin K.F. Chiu
RAM [ ] [ ] Ms. Allison Lee
ADI [ ] [ ] Mr. Tommy Szeto
BEC [x] [x] Mr. Norman Chan
BTR [ ] [ ] Ms. Agnes Hung
RE [ ] [ ]
COW [x] [x]
OTHER [x] [x] Midl

Material Description Vertical Smoke Seal
Location Curtain Wall
Brand Name Hilti
Model Hilti CFS-SP WB Firestop Joint Spray
Country of Origin PRC
Supplier Name Midl Aluminium Fabricator Ltd
Others (Color)
Material / Work Reference \*
Specification Reference
Related Dwg. / A.I. Ref. \*
Related BQ Reference
Submission Attachment
Sample [ ]
Catalogue Data [x] Attached
Test Report / Certificate \* [x] Attached
Equipment Schedule [ ]
Method Statement [x] Attached
Installation Details [ ]
Job Reference [ ]
Remarks (To list deviations, if any) Further to CVI-AR-172, additional vertical smoke seal to curtain wall is required.
\* Delete as appropriate

Review Status / Comment
"B"
for vertical application only

RESPONSE TO MATERIAL SUBMISSION

Date 13 OCTOBER 2022

Comments Attached please find the markup of our comments for your further action: -
1. Please ensure the statutory requirements on the smoke barrier are complied;
2. Please follow construction and application method as stated in the test report to attain the required smoke barrier function;
3. Subject to INH's comments.



Ronald Lu & Partners (Hong Kong) Ltd.

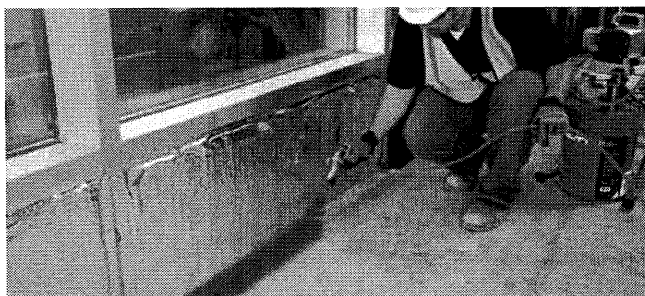
No review is made of detail dimensions/quantities.
The submission is reviewed for general compliance with the design intent only.
Any comments or amendments required shall not be deemed to be variation.
The review does not release the Contractor from his responsibilities to comply with contract requirements.
For resubmission, the Contractor has to highlight or cloud those revision areas in the shop drawing for review.

Legend: A (No objection) C (Amendment & resubmission required)
B (No objection, subject to comments as noted) D (Rejected & resubmission required)

[x] w/e

Replied by SE / Date
Replied by BS / Date
Replied by / Date
cc w/e
MARBLE [x] [x] Mr. Gilman Wan/ Mr. Steven Yeung/ Ms. Tammy Yuen/ Mr. Patrick K.S. Lee/ Mr. Marco S.C. Lee/ Mr. Albert Yiu
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INH [x] [x]

**Firestop joint spray CFS-SP WB**



**APPLICATIONS**

- Sealing openings between the top of walls and concrete or metal floors / ceilings
- Sealing building perimeter gaps between floor slabs or vertical wall and exterior curtain wall facades

**ADVANTAGES**

- Water-based, low VOC, contains no halogens
- High degree of elasticity - movement capability of up to 50%
- Excellent sprayability and low slump characteristics
- Fast, efficient sealing of wide, difficult-to-access joints



Smoke



Water Tight



Acoustic



Siesmic



Low VOC



Mould & Mildew

**Technical data**

<b>Chemical basis</b>	Water-based acrylic dispersion
<b>Base materials</b>	Concrete, Masonry, Gypsum, Steel, Aluminium, Glass
<b>Movement<sup>1)</sup></b>	Up to 50 %
<b>Approx. tack-free time (ventilated at 77°F, 80% rel. humidity)</b>	180 min
<b>Approx. curing time<sup>2)</sup></b>	3 mm/day
<b>Average volume shrinkage</b>	0.511
<b>Application temperature range</b>	4 - 40 °C
<b>Temperature resistance range</b>	-40 - 80 °C
<b>Storage and transportation temperature range</b>	4 - 25 °C
<b>Shelf life<sup>3)</sup></b>	12 Months

<sup>1)</sup> according to HTC 1250

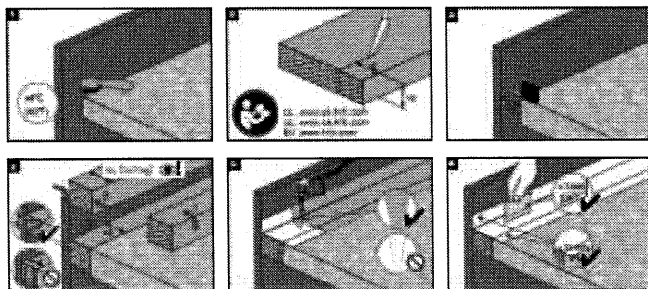
<sup>2)</sup> at 75°F/24°C, 50% relative humidity

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

**Consumption Guide** (per 19000 ml bucket, 3mm wet thickness)

Joint width (mm)	With overlap 15 mm both sides (mm)	Meters per 19 litres pall (meters)
25	55	110
50	80	75
100	130	45
150	180	35
200	230	25

**Application Procedure**



Order Now

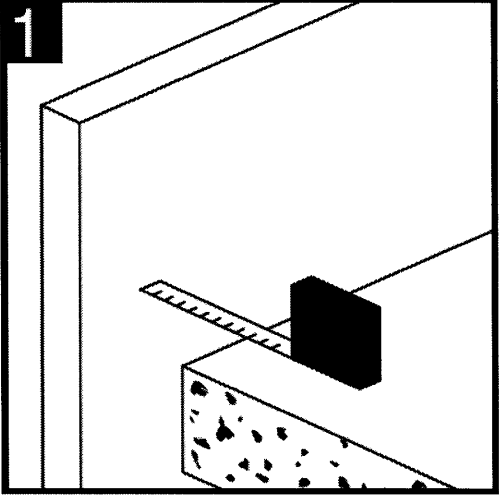
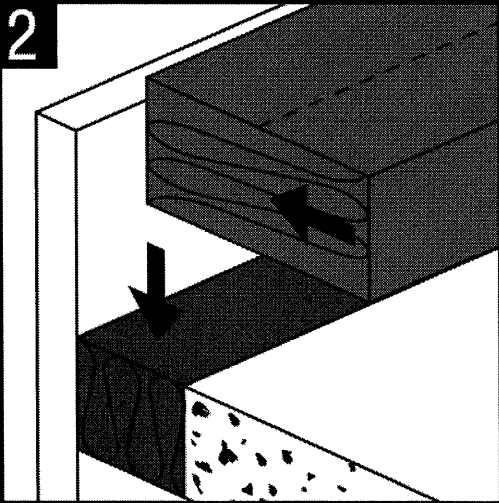
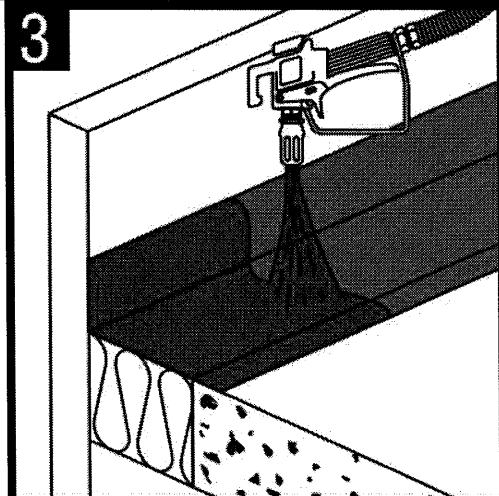
Watch Video

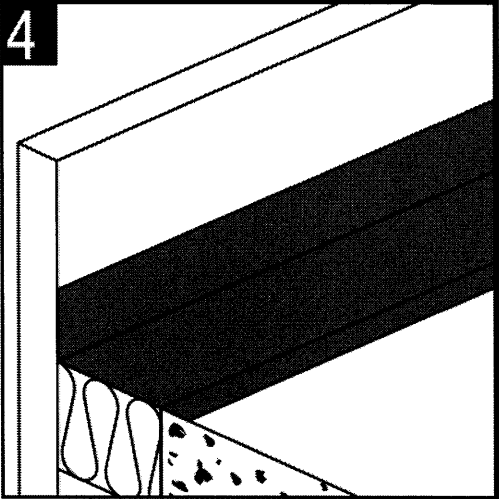
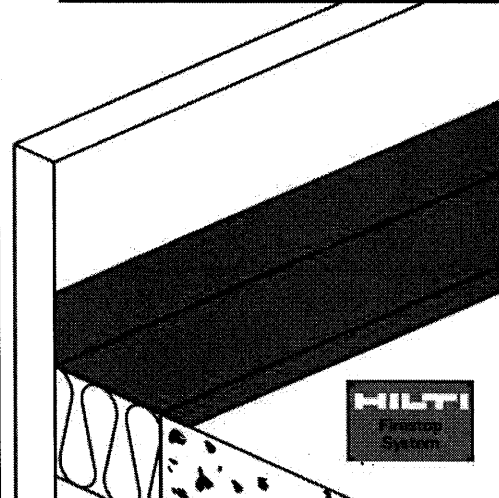


Ordering designation	Colour	Volume per unit	Packaging	Sales pack quantity	Item number
CFS-SP WB red	Red	19000 ml	Bucket	1 pc	430815

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


**Subject:** Method Statement of CFS-SP WB  
**Material:** CFS-SP WB Firestop joint spray  
**Accessory:** Nil

Setting Operation		
1	<p>Clean the opening. Surfaces to which the Firestop Joint Spray will be applied should be cleaned of loose debris, dirt, oil, wax and grease. The surface should be moisture and frost free.</p>	
2	<p>Install the prescribed back filling material type and depth to obtain the desired rating.</p>	
3	<p>Apply the Firestop Joint Spray to the required thickness in order to obtain the desired rating (For wet thick: 3mm; For dry thick: 1.5mm). Make sure the Firestop Joint Spray contacts all surfaces and overlaps beyond all surrounding surfaces (Overlap length min 15mm).</p> <p>For vertical joint, please apply spray on both side of the joint accordingly.</p> <p>Titan Sprayers have been successful in applying Firestop Joint Spray. Hilti recommends the use of the Titan 600 (for application temperatures above 50°F / 10°C) or Firestop Joint Spray may also be brushed on with a paint brush.</p>	

4	<p>Allow the Firestop Joint Spray to fully cure-- approx. 24 hours for typical application thickness (73°F / 23°C and 50% humidity). Users could use simple measuring tools to measure the thickness, for example: cardboard.</p>	
5	<p>For maintenance reasons, all Firestop Joint Spray applications shall be permanently marked with an identification plate and fastened in a visible position next to the seal.</p>	

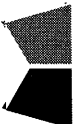
**Safety precautions:**

- Store in a cool dry area
- Keep from freezing. Store between 4°C and 25°C.
- Keep out of reach of children
- Use with adequate ventilation. Keep container closed when not in use.
- Do not get into the eyes
- Do not cover the coating with anything during the curing time.
- Avoid prolonged or repeated contact with the skin.
- Never use in areas immersed in water or on hot surface (over 80°C)

 <b>美特鋁質有限公司</b> MIDI Aluminium Fabricator Ltd.	工程號:	J-857	計算:	練松文	日期:	9/12/2021	送呈:	施哥
	地盤名稱:	啟德6552	核對:	林仁安	日期:	9/12/2021	副本:	
	項目類別:	單元幕牆	批准:		日期:			
	A/C Code:							

此BM依據04/01/2022單元幕牆施工圖第7版計

序號	修改標示	配件圖號	物料編號	配件名稱	顏色	實用	後備	總數	單位	備注
1			M12x45六角頭螺栓, 配1螺帽, 1彈墊, 2平介		A4-70	608	12	620	套	修起底鋼件(G版新增平介)
2			M4x12平頭機絲		S.S-316	1216	34	1250	粒	修起底墊片
3			M4.8x19圓頭自鉛螺絲		S.S-316	24974	526	25500	粒	修邊角鋼
4			M5.5x25圓頭自鉛螺絲		S.S-316	25870	130	26000	粒	修邊角鋼
5			M4.8x16圓頭自鉛螺絲		S.S-316	28859	141	29000	粒	修邊鋁板
6			M5x12圓頭機絲		S.S-316	32430	570	33000	粒	修收邊鋁板及橫筋線
7			M5x20圓頭機絲		S.S-316	2688	122	2810	粒	修橫筋線
8			M5x10平頭機絲		S.S-316	672	28	700	粒	修橫筋線處鋁板
9			膠塞螺絲(灰色鋼牙9號一寸半長)		不銹鋼	97713	2287	10000	套	修邊鋁板及型材
10	B增加		HILTI HST3-R_M8x95 拉爆螺絲		不銹鋼	10537	63	10600	套	修邊鋁板
11			HILTI HST3-R_M10x110 拉爆螺絲		不銹鋼	864	36	900	套	修屋頂鋁板及橫筋線
12			DC791防水膠		Dark Grey	20500	200	20700	支	300ml/支, 防水用
12-a			DC791防水膠		Black	4300	0	4300	支	300ml/支, 水槽位置用
13			DC791防水膠		Bronze	2500	50	2550	支	300ml/支, 防水用
14			DC791防水膠		Metal Grey	2500	50	2550	支	300ml/支, 防水用
15			濾水海綿20x40x80mm			280	20	300	只	頂橫料去水孔(每個單元件2塊)
16			35x21x150mmL高彈性膠墊塊			4101	99	4200	只	單元交接位用
17			21x18x150mmL高彈性膠墊塊			4101	99	4200	只	單元交接位用
18			防火棉棉插		鍍鋅鐵片	10800	200	11000	只	修防火棉
19			防火棉1200x600x135mm厚			1669	31	1700	件	
20			ø8mm海棉棒		白色	11596	406	12002	米	修邊鋁板
21			ø18mm海棉棒		白色	8666	334	9000	米	修邊鋁板

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項目類別:		單元幕牆	批准:		日期:				
A/C Code:							此BIM依據04/01/2022單元幕牆施工圖第7版計		
<b>地盤用配件B.M.表</b> <b>續EI4280地盤用配件BM表</b>									
22			M6.3x50mm六角自鉗螺絲	S.S-316	17260	140	17400	粒	修碼件(4/檯)與EI4284G 序號3是相同
23			10號焊支		24	0	24	包	3.2共6大包(24小包)
24			8號焊支		16	0	16	包	
25			M16絲帽	G.R 8.8	6125	75	6200	粒	
26			M16彈介	G.R 8.8	12250	250	12500	粒	
27			M16平介	G.R 8.8	12250	250	12500	粒	
28			M12x65六角頭螺柱, 配1螺帽, 1彈墊, 2平介	A4-70	72	12	84	粒	修起底鋼件
29			DOWSIL 1200 OS Primer		20	0	20	支	油水槽mill料用
30	B增加		HILTI HST3_M16x145 拉爆螺絲		3310	0	3310	支	用於幕牆臨時路軌安裝
31			鋼牙9號用的平介	A2	12445	555	13000	粒	用於收基仔面防煙片批盪網
32			ø30mm海棉棒	白色	4000	500	4500	米	中企背部與石矢之間用
33			HILTI HST3-R_M16x170 拉爆螺絲		25	0	25	套	用於修補牆身碼
34	B增加		HILTI HST3_M16x170 拉爆螺絲		980	0	980	套	用於幕牆臨時路軌安裝(凹坑情況用)
34	C增加		Hilti CFS-SP WB Firestop Joint Spray		7	0	7	桶	per 19 litres bucket, 油3mm thk.