



**Singapore
Test Services**

A member of ST Engineering

CERTIFICATE OF CONFORMITY

Product Listing Scheme: Scheme Type 5

This certificate is issued to: Hilti Far East Pte Ltd
20 Harbour Drive
#06-06
Singapore 117612

Registration Number/UEN: 196800338E

Product: Fire Stopping Material

Brand: Hilti

Model: CP 636

Country of Origin: Germany

Product Details: Fire Stop Mortar
See COC Appendix (4 pages) for Fire Performance

Standard(s): BS 476-20:1987

Report(s): WARRES No. 101728, 62305/B, 62305/C
BRE No. TE 200637, TE 200638
TÜV SÜD PSB No. 7191165375-MEC17-IHN
7191167286-MEC17-MW

This certificate issued in accordance with SCDF Fire Code 2018 requirements.

Head of Certification



Singapore Test Services



Accredited
Certification
Body

PD-2010-12



Certificate No.	Date of Original Issue	No. of Page(s)	Date of Last Revision	Date of Expiry
20A0304	19 August 2020	1 of 5	28 October 2020	18 August 2025

This Certificate is part of a full report and should be read in conjunction with it. This Certificate remains the property of Singapore Test Services Pte Ltd ("STS") and shall be returned upon request. The use of this Certificate is subjected to the terms and conditions of the Product Listing Scheme of STS. The above certified company is solely responsible for compliance of any product that has the same designation as the product type tested. Parties relying on this Certificate should verify its validity with STS.



APPENDIX

Product Details: Fire Performance of Penetration Gap Sealing System

Separating Element	Aperture Size (mm)	Type of Penetration	Description	Integrity (Mins)	Insulation (Mins)
150mm thick concrete floor slab	600 x 600	Cable trays with various electrical services	50mm thick mineral fibre was installed at the fire exposed side and the unexposed fire side was sealed up with a layer of 75mm thick CP 636 mortar	240	90

For more details, please refer to WARRES No. 101728.

Separating Element	Aperture Size (mm)	Type of Penetration	Description	Integrity (Mins)	Insulation (Mins)
200mm thick concrete wall slab	1200 x 600	Cable trays with various electrical services, metal and plastic tubes	Cable trays were bedded on CP 688 fire prevention putty or CP 611A fire prevention mastic before sealing up the whole aperture with fire prevention mortar	240	60

For more details, please refer to WARRES No. 62305/C

Separating Element	Aperture Size (mm)	Type of Penetration	Description	Integrity (Mins)	Insulation (Mins)
100mm thick concrete wall slab	600 x 600	Cable trays with various electrical services	All cables were applied with a layer of CP 611A mastic in the aperture over a distance of 30mm before sealing up the whole aperture with CP 636 mortar	240	60

For more details, please refer to WARRES No. 62305/B.

Head of Certification

Certificate No. 20A0304	Date of Original Issue 19 August 2020	No. of Page(s) 2 of 5	Date of Last Revision 28 October 2020	Date of Expiry 18 August 2025
-----------------------------------	---	---------------------------------	---	---



APPENDIX

Product Details: Fire Performance of Penetration Gap Sealing System

Separating Element	Aperture Size (mm)	Type of Penetration	Description	Integrity (Mins)	Insulation (Mins)
150mm thick concrete wall slab	700 x 700	Damper with a clear opening of 500mm x 500mm fitted with a HEVAC installation frame	The gap between the penetration service and slab was sealed up with CP 636 mortar	240	-

For more details, please refer to BRE No. TE 200637.

Separating Element	Aperture Size (mm)	Type of Penetration	Description	Integrity (Mins)	Insulation (Mins)
100mm thick concrete wall slab	800 x 800	Damper with a clear opening of 600mm x 600mm fitted with a HEVAC installation frame	The gap between the penetration service and slab was sealed up with CP 636 mortar	240	-

For more details, please refer to BRE No. TE 200638.

Head of Certification



Certificate No. 20A0304	Date of Original Issue 19 August 2020	No. of Page(s) 3 of 5	Date of Last Revision 28 October 2020	Date of Expiry 18 August 2025
-----------------------------------	---	---------------------------------	---	---



APPENDIX

Product Details: Fire Performance of Penetration Gap Sealing System

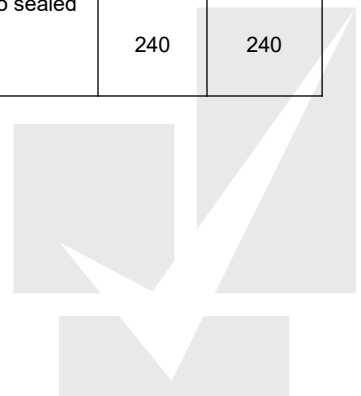
Separating Element	Aperture	Penetration Service	Description	Integrity (mins)	Insulation (mins)
200mm thick concrete floor	A	-	50mm thick mineral wool of 100kg/m ³ was compressed fit in the penetration gap to a depth of 100mm. 50mm thick firestop mortar was then troweled into 50mm deep in the penetration above the mineral wool and levelled to the concrete floor slab surface. Surrounding perimeter of each penetration service was also sealed with CP 606 sealant.	240	240
		2" Metal Pipe with 3.8mm wall thickness		240	-
		300mm x 28mm x 1.2mm thick Metallic Duct		240	30
		2" uPVC Pipe with 2.5mm wall thickness with CP 643N collar and CP 648-E wrap strip on the fire exposed side		210	180
		17mm x 300mm x 17mm x 1.0mm thick steel cable tray with 6 nos. of Ø4.5mm electrical cables		240	240

For more details, please refer to TÜV SÜD PSB No. 7191165375-MEC17-IHN.

Separating Element	Aperture	Penetration Service	Description	Integrity (mins)	Insulation (mins)
200mm thick concrete floor	B	-	50mm thick mineral wool of 100kg/m ³ was compressed fit in the penetration gap to a depth of 80mm. 30mm thick firestop mortar was then troweled into 30mm deep in the penetration above the mineral wool and levelled to the concrete floor slab surface. Surrounding perimeter of each penetration service was also sealed with CP 606 sealant.	240	180
		2" Metal Pipe with 3.8mm wall thickness		240	-
		300mm x 28mm x 1.2mm thick Metallic Duct		240	-
		2" uPVC Pipe with 2.5mm wall thickness with CP 643N collar and CP 648-E wrap strip on the fire exposed side		210	180
		17mm x 300mm x 17mm x 1.0mm thick steel cable tray with 6 nos. of Ø4.5mm electrical cables		240	240

For more details, please refer to TÜV SÜD PSB No. 7191165375-MEC17-IHN.

Head of Certification



Certificate No. 20A0304	Date of Original Issue 19 August 2020	No. of Page(s) 4 of 5	Date of Last Revision 28 October 2020	Date of Expiry 18 August 2025
-----------------------------------	---	---------------------------------	---	---



APPENDIX

Product Details: Fire Performance of Penetration Gap Sealing System

Separating Element	Penetration Service	Description	Integrity (mins)	Insulation (mins)
Concrete Wall	-	30mm thick firestop mortar was apply in the penetration gap, sandwiched by 50mm thick mineral wool of 100kg/m ³ on both fire exposed and unexposed sides. The mineral wool surface can be finished with a thin coat of non-combustible plaster or firestop mortar.	240	180
	2" Metal Pipe with 3.8mm wall thickness		240	-
	300mm x 28mm x1.2mm thick Metallic Duct		240	-
	2" uPVC Pipe with 2.5mm wall thickness with CP 643N collar and CP 648-E wrap strip on both fire exposed and unexposed sides		210	180
	17mm x 300mm x 17mm x 1.0mm thick steel cable tray with 6 nos. of Ø4.5mm electrical cables		240	240

For more details, please refer to TÜV SÜD PSB No. 7191165375-MEC17-IHN and 7191167286-MEC17-MW.

Head of Certification



Certificate No. 20A0304	Date of Original Issue 19 August 2020	No. of Page(s) 5 of 5	Date of Last Revision 28 October 2020	Date of Expiry 18 August 2025
-----------------------------------	---	---------------------------------	---	---

This Certificate is part of a full report and should be read in conjunction with it. This Certificate remains the property of Singapore Test Services Pte Ltd ("STS") and shall be returned upon request. The use of this Certificate is subjected to the terms and conditions of the Product Listing Scheme of STS. The above certified company is solely responsible for compliance of any product that has the same designation as the product type tested. Parties relying on this Certificate should verify its validity with STS.