



Regulatory information report

Fire resistance performance of Hilti CP606 protecting linear joints and gap seals in walls

Sponsor: Hilti (Aust.) Pty Ltd

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Quality management

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		Omar Saad	
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		Prepared by	
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			Reviewed by
Expiry: 30 Nov 2028		Name	Ananya Thomas
		Signature	
		Reviewed by	
			

Executive summary

The analysis conducted in this report contains the minimum information required for regulatory compliance and refers to the referenced assessment report FAS230115 R6.0.

The analysis conducted in the referenced assessment report documents the findings of the assessment undertaken to determine the expected fire resistance level (FRL) of Hilti CP606 protecting linear joints in walls in accordance with AS 1530.4:2014 and assessed in accordance with AS 4072.1:2005.

Hilti CP606 Firestop Acrylic Sealant is described by the manufacturer as a fire caulk that provides a flexible firestop seal for fire rated joints and through penetrations.

The analysis in section 6 of the referenced report found that the proposed systems, including the described variations, are expected to achieve the FRLs listed in section 5 in accordance with AS 1530.4:2014.

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1. Introduction

The analysis conducted in this report contains the minimum information sufficient for regulatory compliance and refers to the assessment report FAS230115 R6.0.

The analysis conducted in the referenced assessment report documents the findings of the assessment undertaken to determine the expected fire resistance level (FRL) of Hilti CP606 protecting linear joints and gap seals in walls in accordance with AS 1530.4:2014¹ and assessed in accordance with AS 4072.1:2005².

This report may be used as evidence of suitability in accordance with the requirements of the relevant National Construction Code (NCC) to support the use of the material, product, form of construction or design as given within the scope of the referenced assessment report. It also references test evidence for meeting deemed to satisfy (DTS) provisions of the NCC that apply to the assessed systems.

The referenced assessment was carried out at the request of Hilti (Aust.) Pty Ltd.

The sponsor details are included in Table 1.

Table 1 Sponsor details

Sponsor	Address
Hilti (Aust.) Pty Ltd	1G Homebush Bay Dr Rhodes NSW 2138 Australia

2. Framework for the assessment

2.1 Assessment approach

An assessment is a professional opinion about the expected performance of a component or element of structure subjected to a fire test.

No specific framework, methodology, standard or guidance documents exists in Australia for undertaking these assessments. We have therefore followed the 'Guide to undertaking technical assessments of the fire performance of construction products based on fire test evidence' prepared by the Passive Fire Protection Forum (PFPF) in the UK in 2021³.

This guide provides a framework for undertaking assessments in the absence of specific fire test results. Some areas where assessments may be offered are:

- Where a modification is made to a construction which has already been tested
- The interpolation or extrapolation of results of a series of fire resistance tests, or utilisation of a series of fire test results to evaluate a range of variables in a construction design or a product
- Where, for various reasons – eg size or configuration – it is not possible to subject a construction or a product to a fire test.

Assessments can vary from relatively simple judgements on small changes to a product or construction through to detailed and often complex engineering assessments of large or sophisticated constructions.

¹ Standards Australia, 2014, Methods for fire tests on building materials, components and structures – Part 4: Fire-resistance tests for elements of construction, AS 1530.4:2014, Standards Australia, NSW.

² Standards Australia, 2005, Components for the protection of openings in fire-resistant separating elements: Service penetrations and control joints, AS 4072.1:2005, Standards Australia, NSW.

³ Passive Fire Protection Forum (PFPF), 2021, Guide to undertaking technical assessments of the fire performance of construction products based on fire test evidence, Passive Fire Protection Forum (PFPF), UK.

The referenced assessment uses established empirical methods and our experience of fire testing similar products to extend the scope of application by determining the limits for the design and performance based on the tested constructions and performances obtained. The assessment is an evaluation of the potential fire resistance performance of the elements in accordance with .

The referenced assessment has been written in accordance with the general principles outlined in EN 15725:2023⁴ for extended application on the fire performance of construction products and building elements: Principle of EXAP standards and EXAP reports.

The referenced assessment has been written using appropriate test evidence generated at accredited laboratories to the relevant test standard. The supporting test evidence has been deemed appropriate to support the manufacturer's stated design.

2.2 Compliance with the National Construction Code

The referenced assessment report has been prepared to meet the evidence of suitability requirements of the NCC 2022⁵ under A5G3 (1) (d). It references test evidence for meeting deemed to satisfy (DTS) provisions of the NCC under A5G5 for fire resistance level that apply to the assessed systems based on Specifications 1 and 2 for fire resistance for building elements.

The referenced assessment report may also be used to demonstrate compliance with the requirements for evidence of suitability under the relevant sections of previous versions of the NCC.

2.3 Declaration

The 'Guide to undertaking technical assessments of the fire performance of construction products based on fire test evidence' prepared by the PFPF in the UK requires a declaration from the client. By accepting our fee proposal on 7 April 2023, Hilti (Aust.) Pty Ltd confirmed that:

- To their knowledge, the variations to the component or element of structure, which is the subject of the referenced assessment, have not been subjected to a fire test to the standard against which the referenced assessment is being made.
- They agree to withdraw the referenced assessment from circulation if the component or element of structure is the subject of a fire test by a test authority in accordance with the standard against which the referenced assessment is being made and the results are not in agreement with the referenced assessment.
- They are not aware of any information that could adversely affect the conclusions of the referenced assessment and – if they subsequently become aware of any such information – they agree to ask the assessing authority to withdraw the assessment.

3. Requirements and limitations of the referenced assessment

- The scope of the referenced assessment report is limited to an assessment of the variations to the tested systems described in section 4.3.
- The assessment of the control joints in the referenced assessment report is based on the consideration that the wall system itself has the respective FRL, established either through testing or assessment in accordance with AS 1530.4:2014.
- The referenced assessment report is only valid for the assessed systems and must not be used for any other purpose. Any changes with respect to size, construction details, loads, stresses, edge or end conditions – other than those identified in the referenced assessment report – may invalidate the findings of the referenced assessment. If there are changes to the system, a reassessment will need to be done by an ATL.

⁴ European Committee for Standardization, 2023, Extended application on the fire performance of construction products and building elements: Principle of EXAP standards and EXAP reports, EN 15725:2023, European Committee for Standardization, Brussels, Belgium

⁵ National Construction Code Volumes One and Two - Building Code of Australia 2022, Australian Building Codes Board, Australia

- The referenced assessment report details the methods of construction, test conditions and assessed results expected in accordance with AS 1530.4:2014.
- The referenced assessment applies to wall systems exposed to fire from either side in accordance with the requirements of AS 1530.4:2014 where vertical elements must be exposed to heat from the direction required to resist fire exposure.
- The referenced assessment report has been prepared based on the fire resistance performance and condition of the products/systems at the time they were tested. Any deterioration of fire resistance performance due to external factors including but not limited to passage of time and exposure to elements – is not considered in the referenced assessment report.
- The referenced assessment report is only valid for the assessed system/s and must not be used for any other purpose. Any changes with respect to size, construction details, loads, stresses, edge or end conditions – other than those identified in the referenced assessment report – may invalidate the findings of the referenced assessment. If there are changes to the system, a reassessment will need to be done by an Accredited Testing Laboratory (ATL) that is accredited to the same nominated standards of the referenced assessment report.
- The referenced assessment report has been prepared using information provided by others. Warringtonfire has not verified the accuracy and/or completeness of that information and will not be responsible for any errors or omissions that may have been incorporated into the referenced assessment report as a result.
- The referenced assessment is based on the proposed systems being constructed under comprehensive quality control practices and following appropriate industry regulations and Australian Standards on quality of materials, design of structures, guidance on workmanship and expert handling, placing and finishing of the products on site. These variables are beyond the control and consideration of the referenced assessment report.

4. Description of the specimen and variations

4.1 Description of assessed systems

The proposed systems include control joints and gap seals in single layer and multi layered fire rated plasterboard walls and rigid walls. Local fire protection is provided by Hilti CP606 Firestop Acrylic sealant.

4.2 Referenced test data

The assessment of the variation to the tested systems and the determination of the expected performance are based on the results of the fire tests documented in the reports summarised in Table 2. Further details of the tested systems are included in Appendix A of the referenced report.

Table 2 Referenced test data

Report number	Test sponsor	Test date	Testing authority
EWFA 2573100.3	Hilti (Aust.) Pty Ltd	15 April 2011	Warringtonfire
EWFA 53391000.3	Hilti (Aust.) Pty Ltd and Hilti (New Zealand) Limited	27 March 2018	Warringtonfire
EWFA 53391100.3	Hilti (Aust.) Pty Ltd and Hilti (New Zealand) Limited	28 March 2018	Warringtonfire

4.3 Variations to the tested systems

The variations to those tested systems – together with the referenced fire test reports – are described in Table 3.

Table 3 Variations to tested systems

Item	Reference test	Variations
Services	EWFA 2573100.3 EWFA 53391000.3 EWFA 53391100.3	The proposed services may be as follows. <ul style="list-style-type: none"> • Wall side edge joint • Wall top edge joint • Wall bottom edge joint • Wall control joint • Wall corner joint • Wall T-joint • Angled wall joint • Butt joints or recessed joints
Plasterboard		Variation to the brand of plasterboard used
Backing material		64 mm steel stud, PE foam backing rod, mineral wool insulation with a density of 100 to 140 kg/m ³
Separating element		The flexible wall separating elements may be as follows. <ul style="list-style-type: none"> • Minimum 90 mm thick steel framed wall lined on each side with minimum 1 × 13 mm or 1 × 16 mm thick fire rated plasterboard with an established FRL of -/60/60 or 60/60/60 in accordance with AS 1530.4:2014 by an ATL. • Minimum 116 mm thick steel framed wall lined on each side with minimum 2 × 13 mm or 2 × 16 mm thick fire rated plasterboard with an established FRL of -/120/120 or 120/120/120 in accordance with AS 1530.4:2014 by an ATL. • Minimum 160 mm thick steel framed wall lined on each side with minimum 3 × 16 mm thick fire rated plasterboard with an established FRL of -/180/180 or 180/180/180 in accordance with AS 1530.4:2014 by an ATL. The rigid wall separating elements may be as follows. <ul style="list-style-type: none"> • Minimum 90 mm thick concrete, autoclaved aerated concrete (AAC), solid block / masonry wall with an established FRL of -/60/60 and 60/60/60 in accordance with AS 1530.4:2014 by an ATL. • Minimum 116 mm thick concrete, autoclaved aerated concrete (AAC) solid block / masonry wall with an established FRL of -/120/120 or 120/120/120 in accordance with AS 1530.4:2014 by an ATL. • Minimum 160 mm thick concrete, autoclaved aerated concrete (AAC) solid block / masonry wall with an established FRL of -/180/180 or 180/180/180 in accordance with AS 1530.4:2014 by an ATL.
Refer to Section 7, Table 5 to Table 13 for the FRL of the proposed services in the proposed wall systems		

4.4 Schedule of components

Table 4 outlines the schedule of components for the assessed systems.

Table 4 Schedule of components of assessed systems

Item	Description	
1.	Item name	Plasterboard wall
	Wall configuration	1 × 13 mm, 2 × 13 mm or 3 × 16 mm plasterboard wall systems with established FRL of -/60/60 or 60/60/60, -/120/120 or 120/120/120 and -/180/180 or 180/180/180 respectively. The FRL of the plasterboard walls must be established through test or assessment by an ATL.
	Product name	The applicable plasterboard wall will include but not limited to the tested brand, and other equivalent plasterboards supplied by other manufacturers such as

Item		Description
		CSR, Siniat or BGC may also be used. FRL of the wall needs to be verified by the wall manufacturer.
2.	Item name	Rigid walls
	Wall specifications	90 mm, 116 mm or 160 mm thick concrete, autoclaved aerated concrete (AAC), solid block / masonry wall systems with an established FRL of -/60/60 or 60/60/60, -/120/120 or 120/120/120 and -/180/180 or 180/180/180 respectively. The FRL of the walls must be established through test or assessment by an ATL.
3.	Item name	Flexible Firestop Sealant
	Product name	Hilti Firestop Acrylic sealant CP 606
4.	Item name	Backing material
	Specifications	PE foam backing rod (Open cell and closed cell) or mineral wool insulation with a density of 100 to 140 kg/m ³
5.	Steel stud	Minimum 64 mm deep (For plasterboard wall only)

5. Assessment outcome

Details of the assessment and discussion are only available in the referenced main assessment report. A summary of the assessment outcome is outlined in Figure 1 to Figure 29 and Table 5 to Table 13.

5.1 Wall side edge joints in framed plasterboard walls

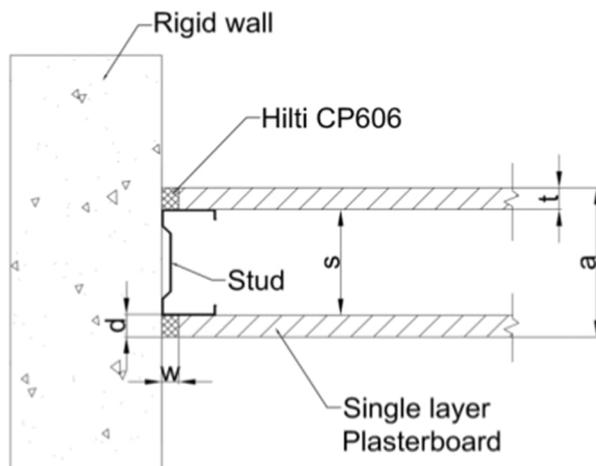


Figure 1 Side edge joint in -/60/60 and 60/60/60 framed walls

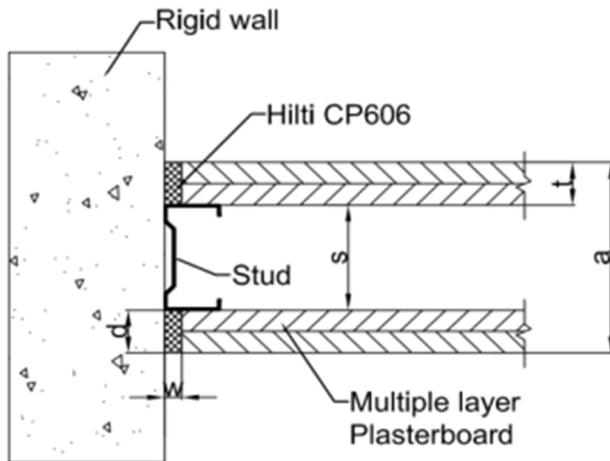


Figure 2 Side edge joint in -/120/120 and 120/120/120 framed walls – Option 1

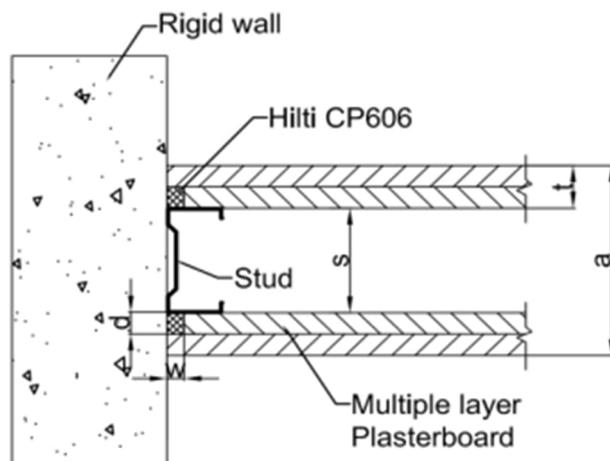


Figure 3 Side edge joint in -/120/120 and 120/120/120 framed walls – Option 2

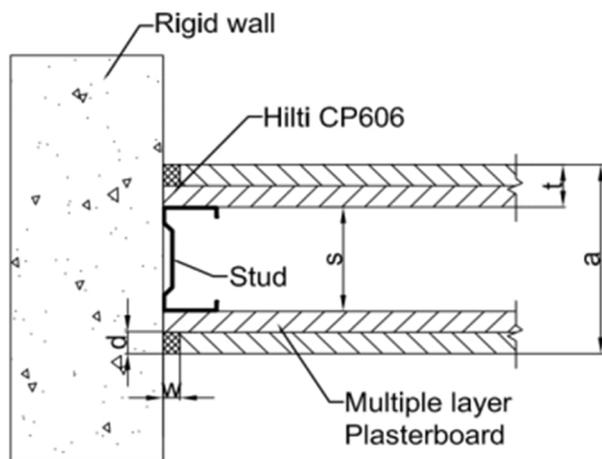


Figure 4 Side edge joint in -/120/120 and 120/120/120 framed walls – Option 3

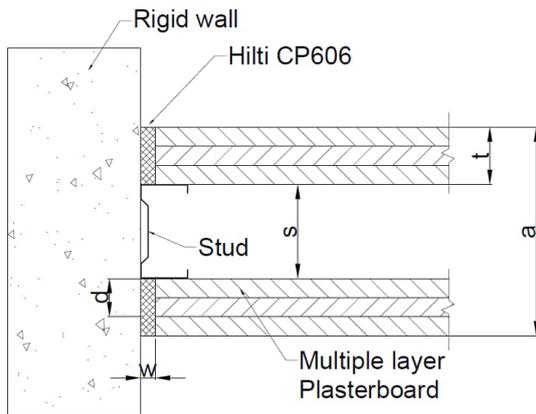


Figure 5 Side edge joint in -/180/180 and 180/180/180 framed walls – Option 1

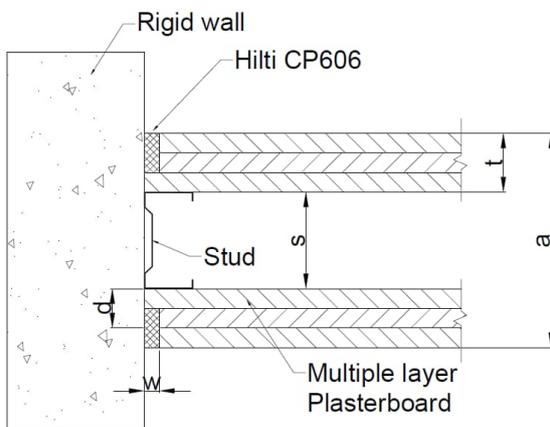


Figure 6 Side edge joint in -/180/180 and 180/180/180 framed walls – Option 2

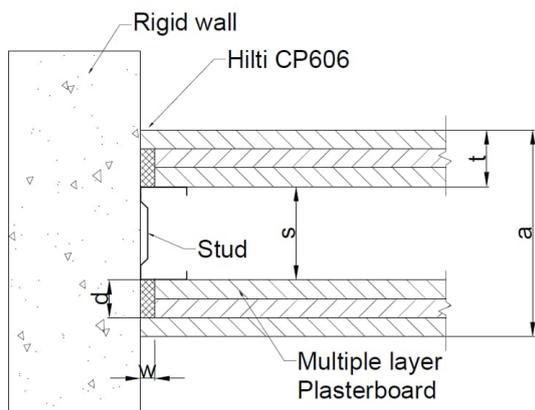


Figure 7 Side edge joint in -/180/180 and 180/180/180 framed walls – Option 3

Table 5 Side edge joints in framed plasterboard walls

Wall lining [t]	Backfilling material	Nominal joint width (mm) [W]	Minimum depth of sealant (mm) [d]	Minimum wall thickness (mm) [a]	Minimum track / stud width (mm) [s]	Figure	FRL
1 × 13 mm or 16 mm fire rated plasterboard on each side	Steel track or timber framing	5 – 10	Depth of wall lining	90	64	Figure 1	-/60/60
2 × 13 mm or 2 × 16 mm fire rated plasterboard on each side	Steel track or timber framing	5 – 10	Depth of both layers of lining	116	64	Figure 2	-/120/120
2 × 13 mm or 2 × 16 mm fire rated plasterboard on each side	Steel track or timber framing	5 – 10	Depth of inner lining only; covered by outer layer of lining	116	64	Figure 3	-/120/120
2 × 13 mm or 2 × 16 mm fire rated plasterboard on each side	Steel track or timber framing	5 – 10	Depth of outer lining only; applied on top of inner layer of lining	116	64	Figure 4	-/120/120
3 × 16 mm fire rated plasterboard on each side	Steel track or timber framing	5-10	Depth of three layers of lining	160	64	Figure 5	-/180/180
3 × 16 mm fire rated plasterboard on each side	Steel track or timber framing	5 – 10	Depth of two outer layers of lining; applied on top of inner layer of lining	160	64	Figure 6	-/180/180
3 × 16 mm fire rated plasterboard on each side	Steel track or timber framing	5 – 10	Depth of two layers of lining; covered by one outer layer of lining	160	64	Figure 7	-/180/180

5.2 Wall top edge joint in framed plasterboard walls

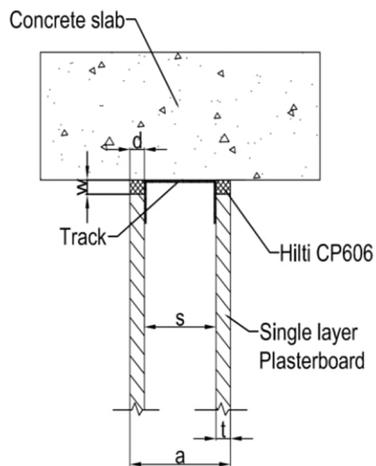


Figure 8 Top edge joint in -/60/60 and 60/60/60 framed walls

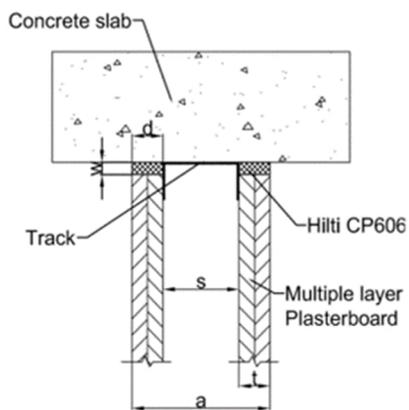


Figure 9 Top edge joint in -/120/120 and 120/120/120 framed walls

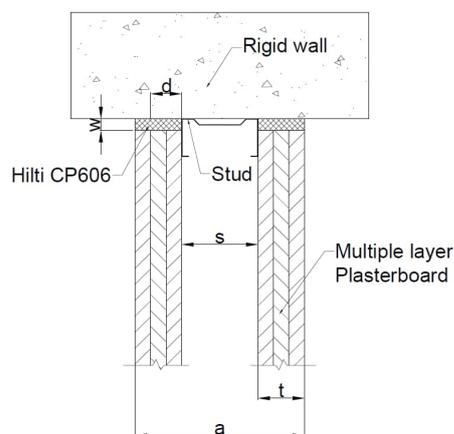


Figure 10 Top edge joint in -/180/180 and 180/180/180 framed walls

Table 6 Top edge joints in framed plasterboard walls

Wall lining [t]	Backfilling material	Nominal joint width (mm) [W]	Minimum depth of sealant (mm) [d]	Minimum wall thickness (mm) [a]	Minimum track / stud width (mm) [s]	Figure	FRL
1 × 13 mm or 16 mm fire rated plasterboard on each side	Steel track or timber framing	5 – 27	Depth of wall lining	90	64	Figure 8	-/60/60
2 × 13 mm or 2 × 16 mm fire rated plasterboard on each side	Steel track or timber framing	5 – 27	Depth of both layers of lining	116	64	Figure 9	-/120/120
3 × 16 mm fire rated plasterboard on each side	Steel track or timber framing	5 – 27	Depth of three layers of lining	160	64	Figure 10	-/180/180

5.2.1 Wall bottom edge joints in framed plasterboard walls

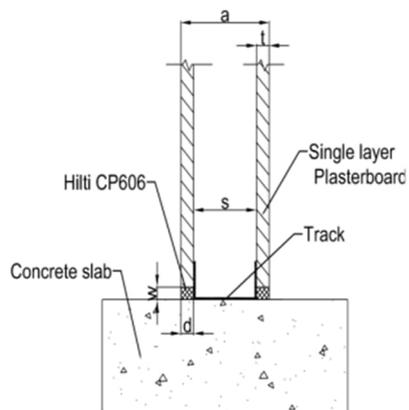


Figure 11 Bottom edge joint in -60/60 and 60/60/60 framed walls

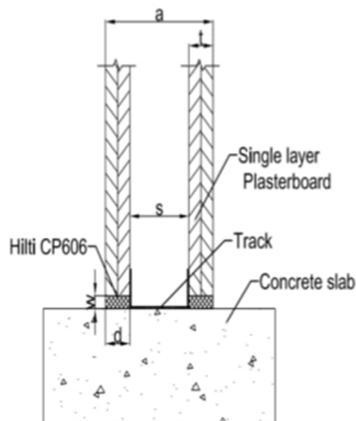


Figure 12 Bottom edge joint in -120/120 and 120/120/120 framed walls – Option 1

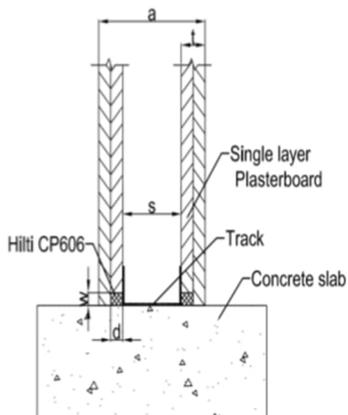


Figure 13 Bottom edge joint in -120/120 and 120/120/120 framed walls – Option 2

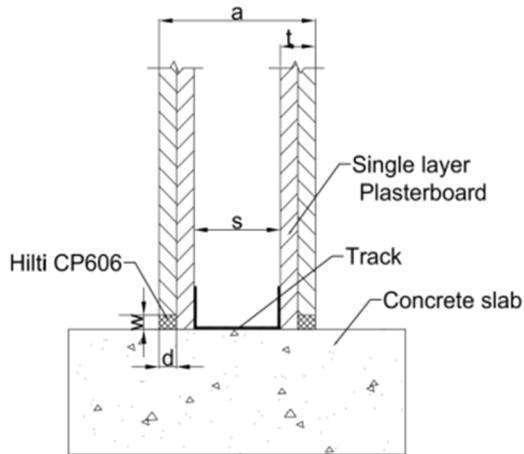


Figure 14 Bottom edge joint in -/120/120 and 120/120/120 framed walls – Option 3

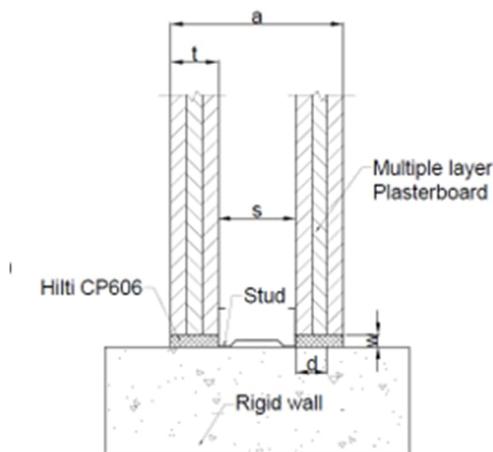


Figure 15 Bottom edge joint in -/180/180 and 180/180/180 framed walls-Option 1

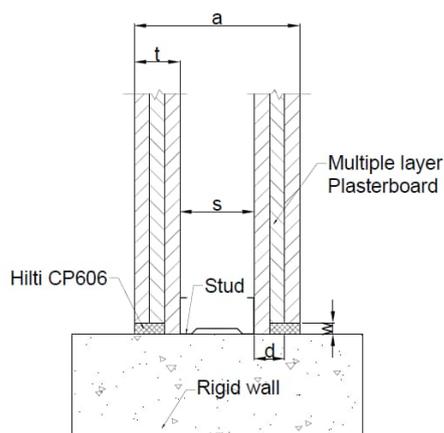


Figure 16 Bottom edge joint in -/180/180 and 180/180/180 framed walls-Option 2

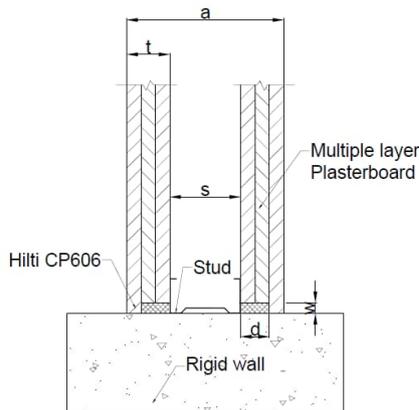


Figure 17 Bottom edge joint in -/180/180 and 180/180/180 framed walls-Option 3

Table 7 Bottom edge joints in framed plasterboard walls

Wall lining [t]	Backfilling material	Nominal joint width (mm) [W]	Minimum depth of sealant (mm) [d]	Minimum wall thickness (mm) [a]	Minimum track / stud width (mm) [s]	Figure	FRL
1 × 13 mm or 16 mm fire rated plasterboard on each side	Steel track or timber framing	5 – 20	Depth of wall lining	90	64	Figure 11	-/60/60
2 × 13 mm or 2 × 16 mm fire rated plasterboard on each side	Steel track or timber framing	5 – 20	Depth of both layers of lining	116	64	Figure 12	-/120/120
2 × 13 mm or 2 × 16 mm fire rated plasterboard on each side	Steel track or timber framing	5 – 20	Depth of inner lining only; covered by outer layer of lining	116	64	Figure 13	-/120/120
2 × 13 mm or 2 × 16 mm fire rated plasterboard on each side	Steel track or timber framing and inner layer of plasterboard	5 – 20	Depth of outer lining only; applied on top of inner layer of lining	116	64	Figure 14	-/120/120
3 × 16 mm fire rated plasterboard on each side	Steel track or timber framing	5 – 20	Depth of three layers of lining	160	64	Figure 15	-/180/180
3 × 16 mm fire rated plasterboard on each side	Steel track or timber framing	5 – 20	Depth of inner most lining only; covered by two outer layers of lining	160	64	Figure 16	-/180/180

3 × 16 mm fire rated plasterboard on each side	Steel track or timber framing	5 – 20	Depth of outer lining only; applied on top of 2 layers of lining	160	64	Figure 17	-/180/180
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5.2.2 Wall control joint in framed plasterboard walls

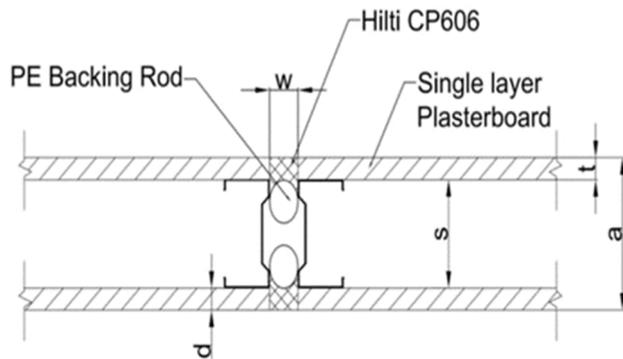


Figure 18 Wall control joint in -/60/60 and 60/60/60 framed walls

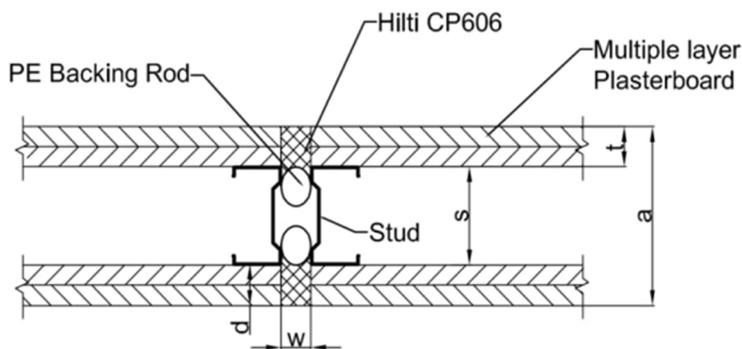


Figure 19 Wall control joint in -/120/120 and 120/120/120 framed walls

Table 8 Wall control joints in framed plasterboard walls

Wall lining [t]	Backfilling material	Nominal joint width (mm) [W]	Minimum depth of sealant (mm) [d]	Minimum wall thickness (mm) [a]	Minimum track / stud width (mm) [s]	Figure	FRL
1 × 13 mm or 16 mm fire rated plasterboard on each side	PE backing rod or mineral wool insulation	5 – 30	20 mm	90	64	Figure 18	-/60/60

Wall lining [t]	Backfilling material	Nominal joint width (mm) [W]	Minimum depth of sealant (mm) [d]	Minimum wall thickness (mm) [a]	Minimum track / stud width (mm) [s]	Figure	FRL
2 × 13 mm or 2 × 16 mm fire rated plasterboard on each side	PE backing rod or mineral wool insulation	5 – 30	Depth of both layers of lining	116	64	Figure 19	-/120/120

5.2.3 Corner joint in framed plasterboard walls

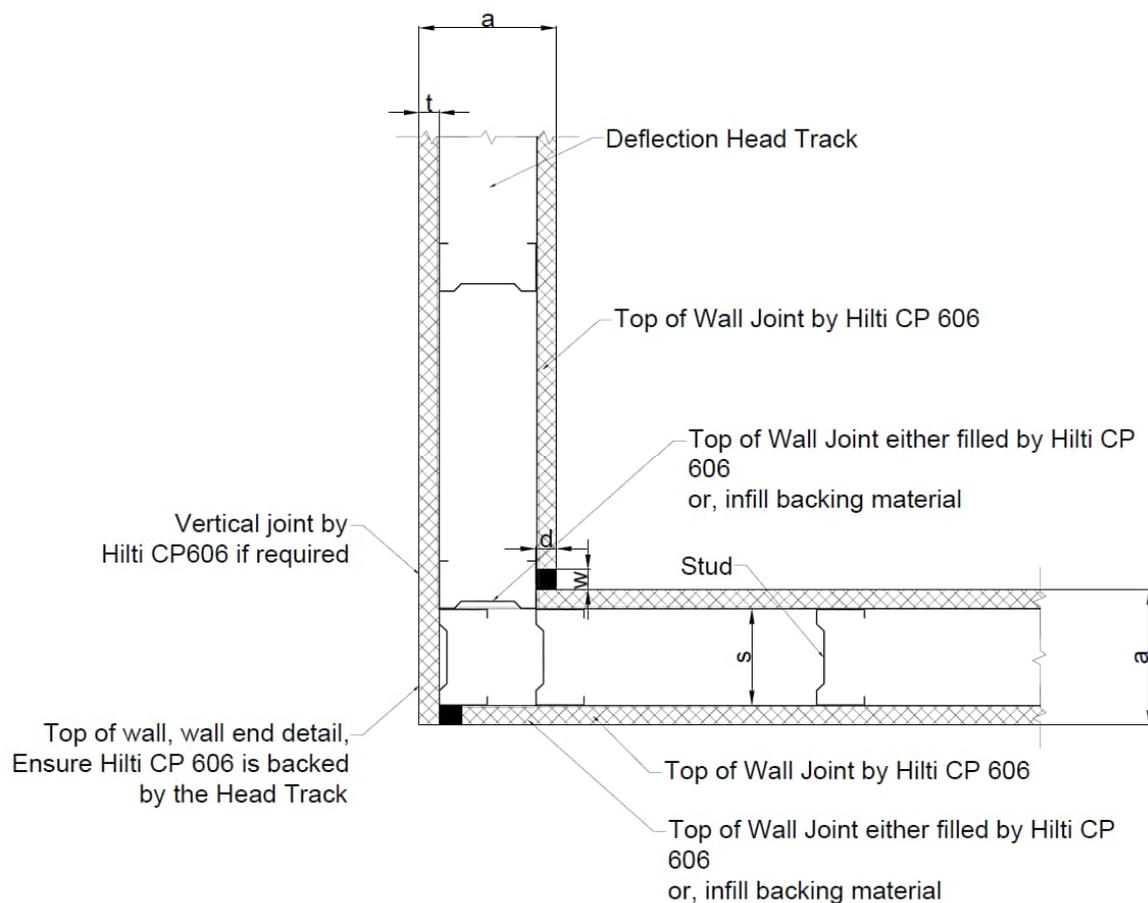


Figure 20 Wall corner joint in -/60/60 framed plasterboard walls

Table 9 Wall corner joint in framed plasterboard walls

Wall lining [t]	Backfilling material	Nominal joint width (mm) [W]	Minimum depth of sealant (mm) [d]	Minimum wall thickness (mm) [a]	Minimum track / stud width (mm) [s]	Figure	FRL
1 × 13 mm or 16 mm fire rated	Steel track or timber framing	5 – 10	Depth of wall lining	90	64	Figure 20	-/60/60

Wall lining [t]	Backfilling material	Nominal joint width (mm) [W]	Minimum depth of sealant (mm) [d]	Minimum wall thickness (mm) [a]	Minimum track / stud width (mm) [s]	Figure	FRL
plasterboard on each side							
2 × 13 mm or 2 × 16 mm fire rated plasterboard on each side	Steel track or timber framing	5 – 10	Depth of both layers of lining	116	64	Figure 20	-/120/120
3 × 16 mm fire rated plasterboard on each side	Steel track or timber framing	5 – 10	Depth of three layers of lining	160	64	Figure 20	-/180/180

Note: Figure 20 illustrates wall corner joints for 1 hour wall systems only. For two hour and three-hour wall systems, Figure 20 only intends to be a general representation of the system.

5.2.4 Angled wall joints in framed plasterboard walls

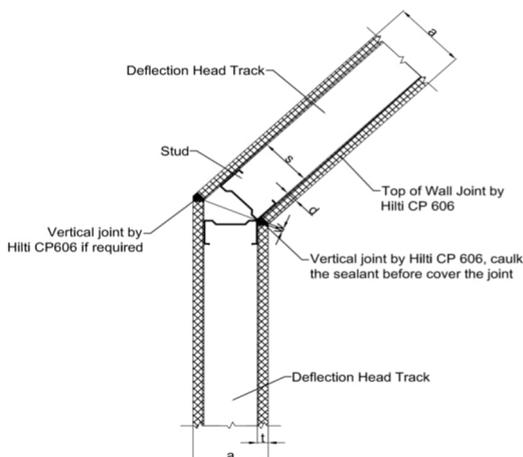


Figure 21 Angled wall joint in -/60/60 framed plasterboard wall

Table 10 Angled wall joint in framed plasterboard walls

Wall lining [t]	Backfilling material	Nominal joint width (mm) [W]	Minimum depth of sealant (mm) [d]	Minimum wall thickness (mm) [a]	Minimum track / stud width (mm) [s]	Figure	FRL
1 × 13 mm or 16 mm fire rated plasterboard on each side	Steel track or timber framing, PE Foam backing rod or mineral wool insulation	Up to 10	Depth of wall lining	90	64	Figure 21	-/60/60
2 × 13 mm or 2 × 16 mm fire rated plasterboard on each side	Steel track or timber framing, PE Foam backing rod or mineral	Up to 10	Depth of both layers of lining	116	64	Figure 21	-/120/120

Wall lining [t]	Backfilling material	Nominal joint width (mm) [W]	Minimum depth of sealant (mm) [d]	Minimum wall thickness (mm) [a]	Minimum track / stud width (mm) [s]	Figure	FRL
	wool insulation						
3 × 16 mm fire rated plasterboard on each side	Steel track or timber framing, PE Foam backing rod or mineral wool insulation	Up to 10	Depth of three layers of lining	160	64	Figure 21	-/180/180

Note: Figure 21 illustrates angled wall joints for 1 hour wall systems only. For two hour and three-hour wall systems, Figure 21 only intends to be a general representation of the system.

5.2.5 T-Intersection joint in framed plasterboard walls

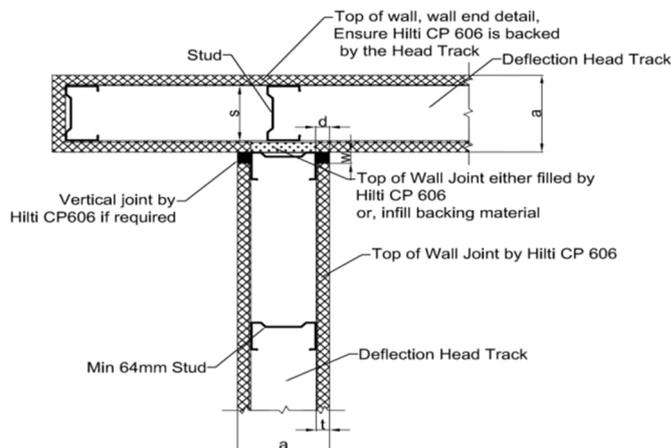


Figure 22 T intersection joint in -/60/60 framed plasterboard wall

Table 11 T intersection joint in framed plasterboard walls

Wall lining [t]	Backfilling material	Nominal joint width (mm) [W]	Minimum depth of sealant (mm) [d]	Minimum wall thickness (mm) [a]	Minimum track / stud width (mm)	Figure	FRL
1 × 13 mm or 16 mm fire rated plasterboard on each side	Steel track or timber framing, PE Foam backing rod or mineral wool insulation	Up to 10	Depth of wall lining	90	64	Figure 22	-/60/60
2 × 13 mm or 2 × 16 mm fire rated plasterboard on each side	Steel track or timber framing, PE Foam backing rod or mineral	Up to 10	Depth of both layers of lining	116	64	Figure 22*	-/120/120

Wall lining [t]	Backfilling material	Nominal joint width (mm) [W]	Minimum depth of sealant (mm) [d]	Minimum wall thickness (mm) [a]	Minimum track / stud width (mm)	Figure	FRL
	wool insulation						
3 × 16 mm fire rated plasterboard on each side	Steel track or timber framing, PE Foam backing rod or mineral wool insulation	Up to 10	Depth of three layers of lining	160	64	Figure 22*	-/180/180
<p>Note: Figure 22 illustrates T-intersection joints for 1 hour wall systems only. For two hour and three-hour wall systems, Figure 22 only intends to be a general representation of the system.</p>							

5.2.6 Butt joints in framed plasterboard walls

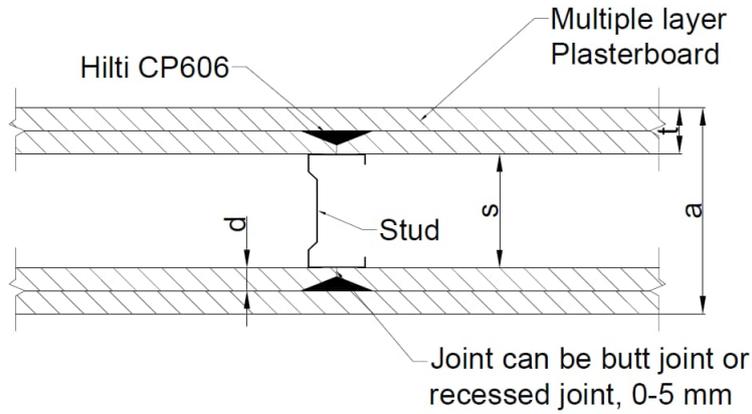


Figure 23 Butt joints or recessed joints -/120/120 and 120/120/120 framed plasterboard walls- Option 1

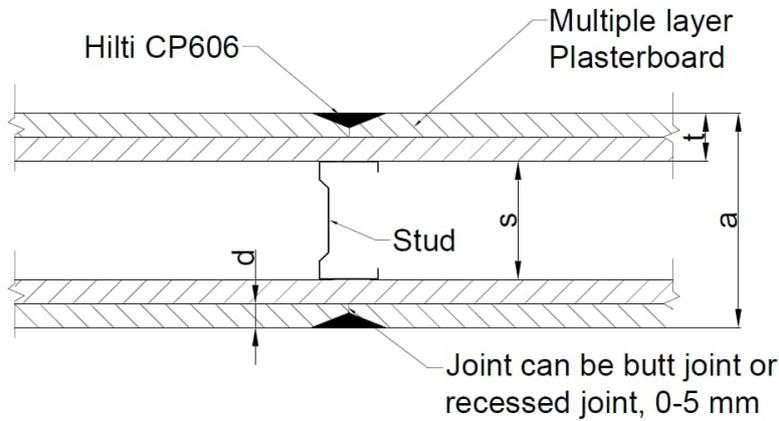


Figure 24 Butt joints or recessed joints -/120/120 and 120/120/120 framed plasterboard walls- Option 2

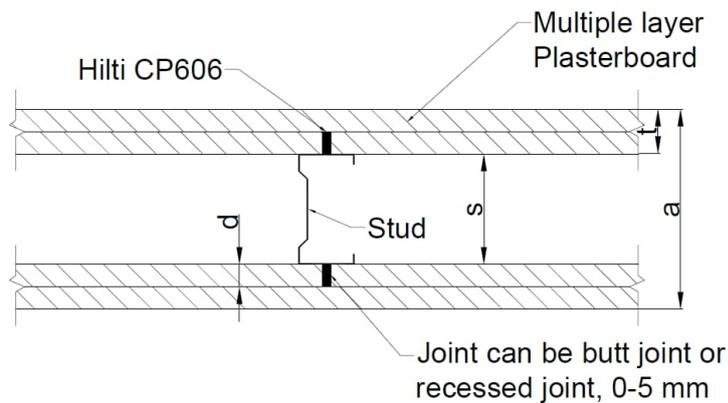


Figure 25 Wall to wall butt joint -/120/120 and 120/120/120 framed plasterboard walls- Option 3

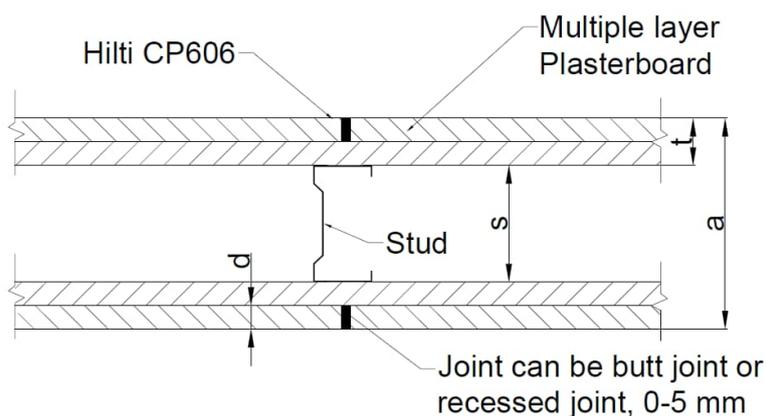


Figure 26 Wall to wall butt joint -/120/120 and 120/120/120 framed plasterboard walls- Option 4

Table 12 Wall to wall butt joints in framed plasterboard walls

Wall lining [t]	Backfilling material	Nominal joint width (mm) [W]	Minimum depth of sealant (mm) [d]	Minimum wall thickness (mm) [a]	Minimum track / stud width (mm) [s]	Figure	FRL
2 × 13 mm or 16 mm fire rated plasterboard on each side	Steel track or timber framing, PE Foam backing rod or mineral wool insulation	0 – 5	Depth of inner lining	116	64	Figure 23 Figure 24	-/120/120

Wall lining [t]	Backfilling material	Nominal joint width (mm) [W]	Minimum depth of sealant (mm) [d]	Minimum wall thickness (mm) [a]	Minimum track / stud width (mm) [s]	Figure	FRL
2 × 13 mm or 2 × 16 mm fire rated plasterboard on each side	Steel track or timber framing, PE Foam backing rod or mineral wool insulation	0 – 5	Depth of outer lining	116	64	Figure 25 Figure 26	-/120/120

5.2.7 Wall top edge joint in rigid walls

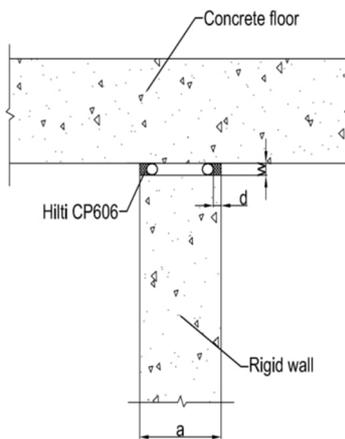


Figure 27 Wall top edge joint in rigid walls

5.2.8 Wall control joint in rigid walls

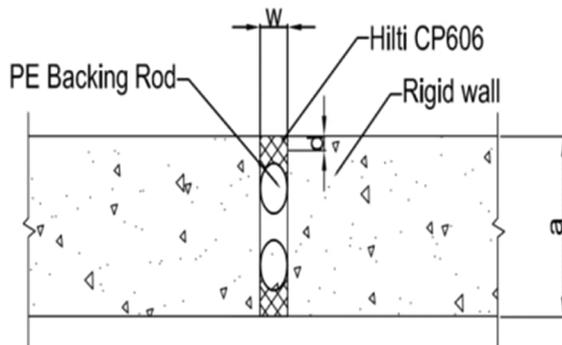


Figure 28 Control joint in rigid walls

5.2.9 Wall T-joint in rigid walls

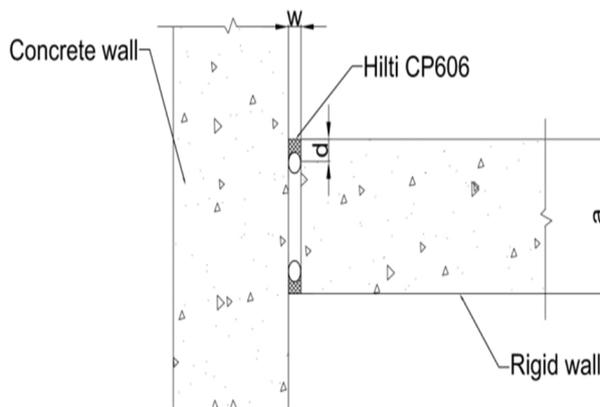


Figure 29 Wall T-joint in rigid walls

Table 13 Joints in rigid walls

Seal type	Backfilling material	Nominal joint width (mm) [W]	Minimum depth of sealant (mm) [d]	Minimum wall thickness (mm) [a]	Figure	FRL
Wall top edge joint	PE Foam backing rod or mineral wool insulation	5 – 27	13 mm both sides of the wall	90	Figure 27	-/60/60
Wall top edge joint	PE Foam backing rod or mineral wool insulation	5 – 27	26 mm both sides of the wall	116	Figure 27	-/120/120
Wall top edge joint	PE Foam backing rod or mineral wool insulation	5 – 27	26 mm both sides of the wall	160	Figure 27	-/180/180
Wall control joint	PE Foam backing rod or mineral wool insulation	5 – 30	13 mm both sides of the wall	90	Figure 28	-/60/60

Seal type	Backfilling material	Nominal joint width (mm) [W]	Minimum depth of sealant (mm) [d]	Minimum wall thickness (mm) [a]	Figure	FRL
Wall control joint	PE Foam backing rod or mineral wool insulation	5 – 30	26 mm both sides of the wall	116	Figure 28	-/120/120
Wall control joint	PE Foam backing rod or mineral wool insulation	5 – 30	26 mm both sides of the wall	160	Figure 28	-/180/180
Wall T-joint	PE Foam backing rod or mineral wool insulation	5 –20	13 mm both sides of the wall	90	Figure 29	-/60/60
Wall T-joint	PE Foam backing rod or mineral wool insulation	5 –20	13 mm both sides of the wall	116	Figure 29	-/120/120
Wall T-joint	PE Foam backing rod or mineral wool insulation	5 –20	13 mm both sides of the wall	160	Figure 29	-/180/180

6. Validity

Warringtonfire does not endorse the tested products and systems in any way. The conclusions of the referenced assessment may be used to directly assess fire resistance, but it should be recognised that a single test method will not provide a full assessment of fire resistance under all conditions.

Due to the nature of fire testing and the consequent difficulty in quantifying the uncertainty of measurement, it is not possible to provide a stated degree of accuracy. The inherent variability in test procedures, materials and methods of construction, and installation may lead to variations in performance between elements of similar construction.

The referenced assessment is based on test data, information and experience available at the time of preparation. If contradictory evidence becomes available to the assessing authority, the assessment will be unconditionally withdrawn and the report sponsor will be notified in writing. Similarly, the assessment should be re-evaluated, if the assessed construction is subsequently tested since actual test data is deemed to take precedence.

The sponsor is responsible for formally notifying Warringtonfire of any additional testing performed on their product/system. This obligation applies regardless of where the test was conducted, the results of the test, or whether it was initially considered part of Warringtonfire's ongoing assessment. The primary goal of this notification is to allow Warringtonfire to review the changes and determine whether they require re-evaluation or re-testing to determine whether the changes have affected the product's performance. It is important that the client promptly notify Warringtonfire if any such changes are implemented.

The procedures for the conduct of tests and the assessment of test results are subject to constant review and improvement. The sponsor is therefore recommended that the referenced assessment report be reviewed on, or before, the stated expiry date.

The referenced assessment represents our opinion about the performance of the proposed systems that is expected to be demonstrated when subjected to test conditions in accordance with AS 1530.4:2014, based on the evidence referred to in the referenced assessment report.

The referenced assessment is provided to Hilti (Aust.) Pty Ltd for their own specific purposes. The referenced assessment report may be used as evidence of suitability in accordance with the requirements of the relevant National Construction Code. Building certifiers and other third parties must determine the suitability of the systems described in the referenced assessment report for a specific installation.

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