



CERTIFICATE OF APPROVAL

No CF 5659

This is to certify that, in accordance with
TS00 General Requirements for Certification of Fire Protection Products
The undermentioned products of

FISCHERWERKE GMBH & CO. KG

Klaus Fischer Straße 1, 72178 Waldachtal, Germany
Tel: 49 7443 120

Have been assessed against the requirements of the Technical Schedule(s)
denoted below and are approved for use subject to the conditions
appended hereto:

CERTIFIED PRODUCT
FCFcl Cavity Clad

TECHNICAL SCHEDULE
TS39 Fire Resisting Cavity
Barrier Systems

Signed and sealed for and on behalf of Exova (UK) Limited trading as
Warrington Certification

Paul Duggan
Certification Manager



Issued: 23rd November 2012
Revised: 21st January 2019
Valid to: 9th November 2022





CERTIFICATE No CF 5659

FISCHERWERKE GMBH & CO. KG

FCFcl Cavity Clad

1. This approval relates to the use of FCFcl Cavity Clad for the fire protection of cavities within walls and floors. The detailed scope is given in the Approval Matrix included in this Certificate. This shows the thickness, width and reference for FCFcl Cavity Clad, required to provide fire resistance periods in accordance BS 476: Part20: 1987 for up to 120 minutes for wall and floor constructions.
2. This certification is provided to the client for its own purposes and we cannot opine on whether it will be accepted by Building Control authorities or any other third parties for any purpose.
3. This certification will set out our conclusion as to whether the information provided is sufficient to demonstrate compliance with the relevant standard. We cannot, and will not, opine upon whether Building Control will regard the certification as sufficient for any purpose. In accepting our quote you agree to us providing you with the certification without any guarantee as to whether it will be accepted by Building Control or any other authority as evidence of compliance with the Building Regulations or other relevant standards.
4. The product is approved on the basis of:
 - i) Initial type testing
 - ii) Audit testing at the frequency specified in TS40
 - iii) A design appraisal against TS40
 - iv) Inspection and surveillance of factory production control
 - v) Certification of quality management system to ISO 9001: 2008
5. The walls and floors shall of specified thickness in relation to the approval matrix, and have at least the same fire rating as that required for the Cavity Barrier.
6. Block/masonry and concrete gap faces will be within the density range of 450 to 2300kg/m³, and gap faces will be free from loose or flaking material. Softwood will have a density of min 510kg/m³
7. The approval relates to on-going production. Product and/or its immediate packaging is identified with the manufacturers' name, the product name or number, the CERTIFIRE name or name and mark, together with the CERTIFIRE certificate number and application where appropriate.

Further information regarding the details contained in this data sheet may be obtained from fischerwerke GmbH & Co. KG (Tel: int +49 7443 120)

Further information regarding CERTIFIRE certification and other approved products can be obtained from CERTIFIRE (Tel: 01925 646777, website: www.warringtonfire.net)

CERTIFICATE No CF 5659 FISCHERWERKE GMBH & CO. KG

FCFcl Cavity Clad – Approval Matrix Substrate and Fixing Details

The product is approved to be used in the following Rigid Floor and Wall assemblies:

- i) Block, masonry, aerated concrete and concrete will be within the density range of 450 to 2300kg/m³
 - ii) *CP (Cement Particle) Board will be within the density range of 450 to 2300kg/m³
 - iii) Concrete Cladding will be within the density range of 450 to 2300kg/m³
 - iv) Softwood 40mm thick, will have a density of min 510kg/m³
 - vi) Hardwood 40mm thick, will have a density of min 510kg/m³
- *CP Board, softwood and hardwood backed with min 150mm block, masonry, aerated concrete and concrete will be within the density range of 450 to 2300kg/m³

Installation and fixing

FCFcl Cavity Clad and fire stops shall not be penetrated by services etc. e.g. pipes or cables

FCFcl Cavity Clad is supplied in either pre-cut lengths or in sheet form to be cut on site. Care should be taken the correct measurements are made prior to ordering or before cutting on site, strictly observing the requirements of the tables in this document.

Unless otherwise indicated FCFcl Cavity Clad seals shall be supported at the correct distances and number of brackets as indicated in the tables of this document – see table below.

Joints

Joints between each length of FCFcl Cavity Clad shall be a straight butt joint, fitted with slight compression so that they are a tight fit and sealed with self-adhesive reinforced foil tape as supplied by fischerwerke GmbH & Co. KG.

Building Element Gaps

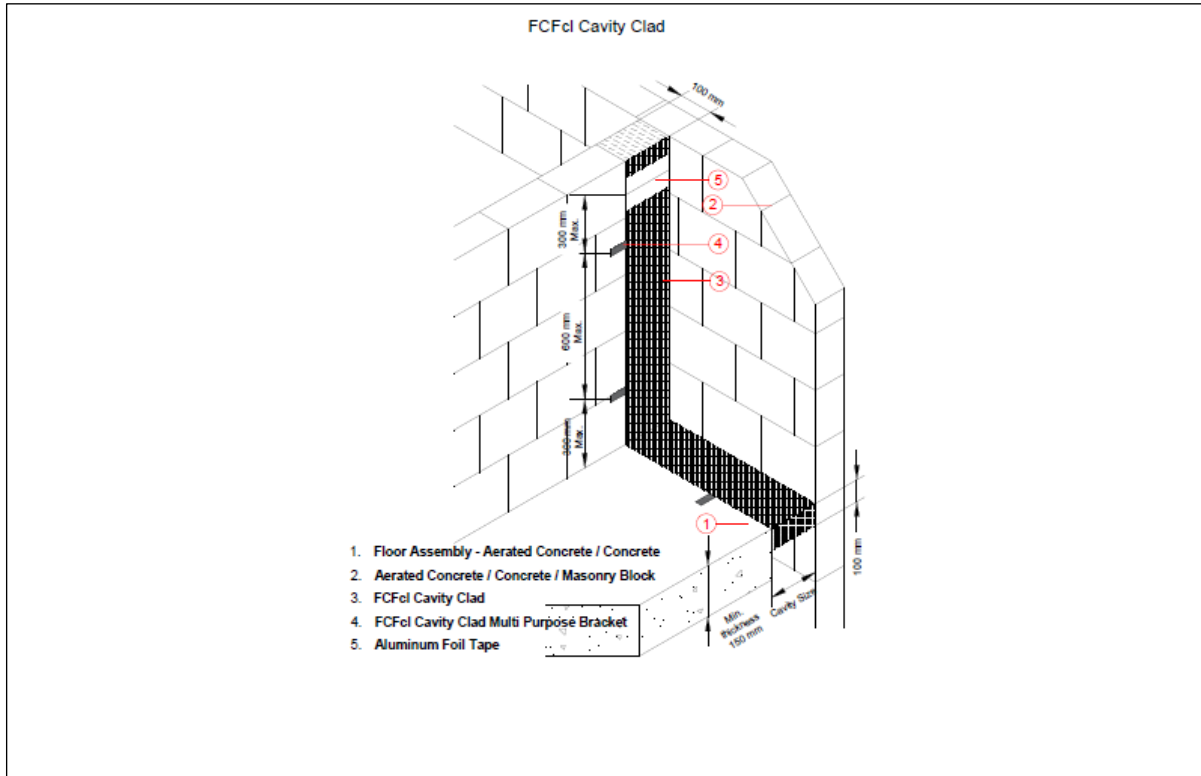
A fundamental requirement to achieve a fire compartment when installing FCFcl Cavity Clad is that the gaps does not deviate greater than the specified compression tolerances stated in the tables within this documents.

FCFcl Cavity Clad FIXING DETAIL TABLE			
Detail No.	Position	No. of Brackets	Side of Seal
1	600mm centres	One	One
2	600mm centres	One	Both
3	550mm centres	One	One

Multi purpose brackets with dimensions of 450/250 x 25 x 1mm installed mid depth of the barrier to provide support. The mild steel support brackets are to be mechanically fixed to the associated building element with a suitable fire resistant anchor. Stainless steel brackets of the same dimensions are also allowed.

CERTIFICATE No CF 5659 FISCHERWERKE GMBH & CO. KG

FCFcl Cavity Clad – Floor & Wall Approval Matrix BS476: Part 20

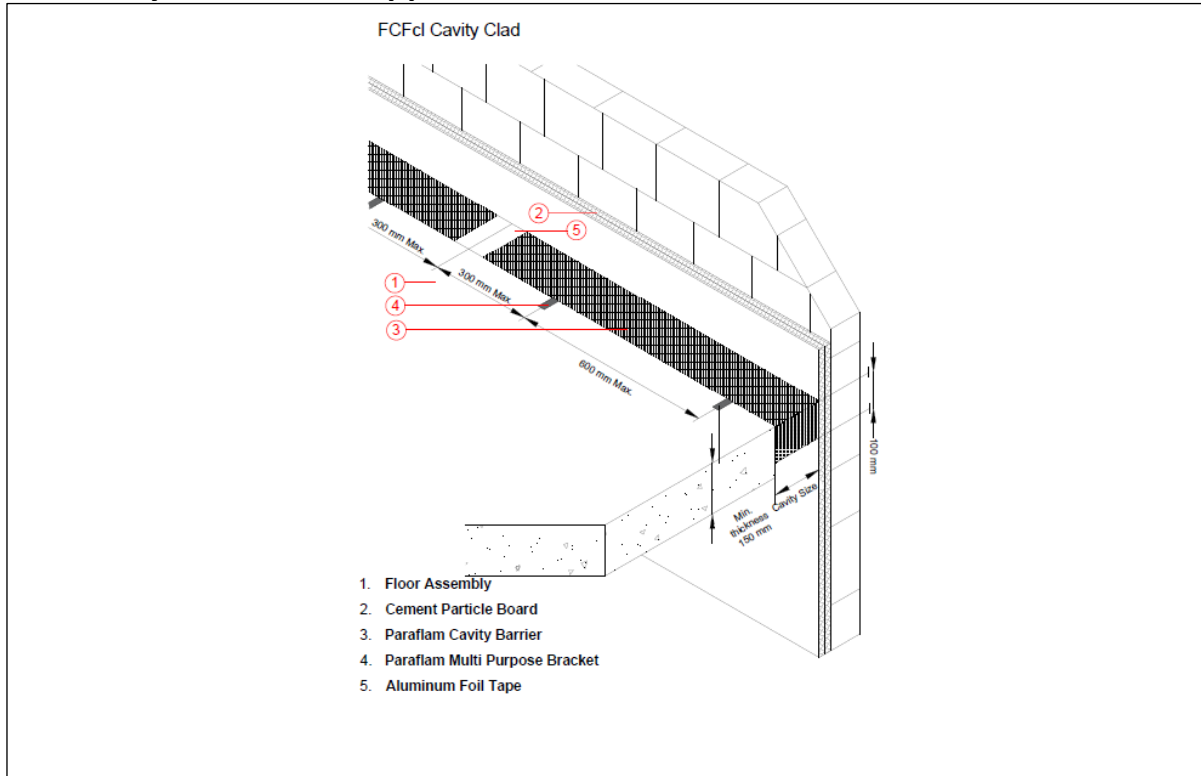


Joint Seal in Floors/Walls ≥ 150 mm thickness (min)

Min depth and density of FCFcl Cavity Clad	Joint width range mm	Element of Construction	Compression Minimum mm	Fixing Detail	Integrity min	Insulation min
100mm / 80kg/m ³	1 - 150	Aerated concrete/Concrete - Block	10	N/A	120	60
100mm / 80kg/m ³	151 - 350	Aerated concrete/Concrete-Block	10	1	60	30
100mm / 80kg/m ³	351 - 560	Aerated concrete/Concrete-Block	10	2	60	30

CERTIFICATE No CF 5659 FISCHERWERKE GMBH & CO. KG

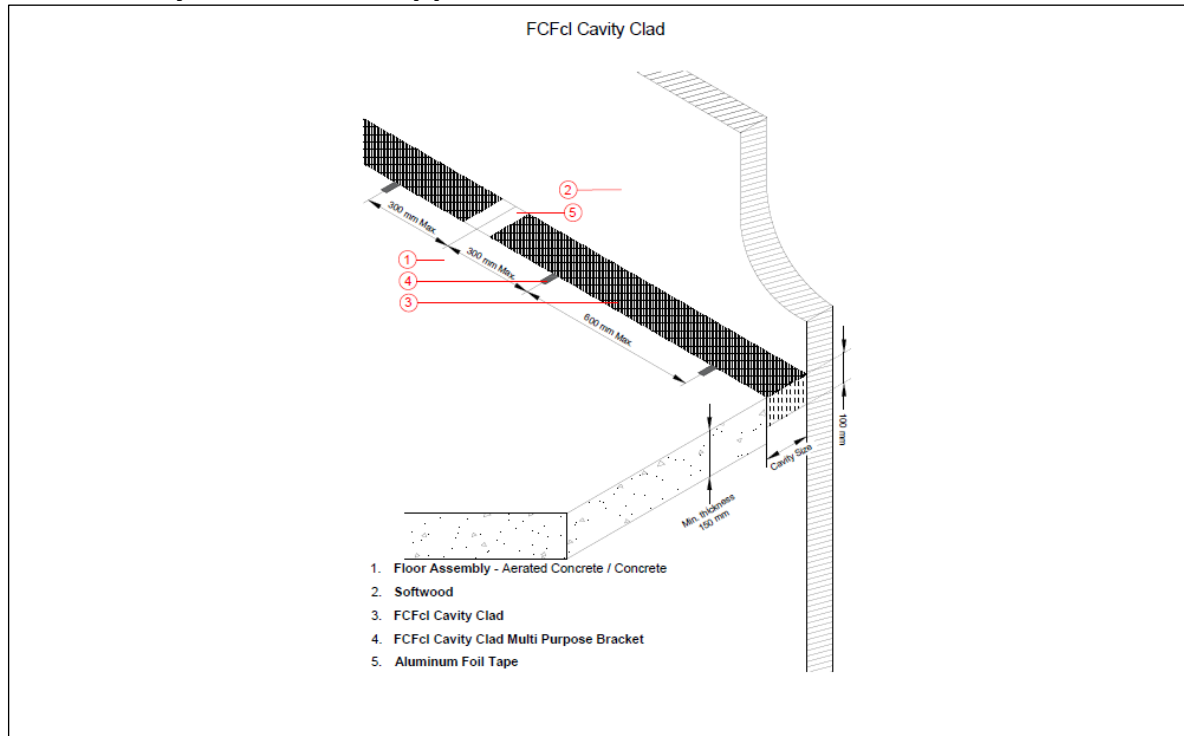
FCFcl Cavity Clad – Floor Approval Matrix BS476: Part 20



Joint Seal in Floors ≥ 150 mm thickness (min)						
Min depth and density of FCFcl Cavity Clad	Joint width range mm	Element of Construction	Compression Minimum mm	Fixing Detail	Integrity min	Insulation min
100mm / 80kg/m^3	1 - 150	Aerated concrete/Concrete - Cement Particle Board	10	N/A	120	60
100mm / 80kg/m^3	151 - 350	Aerated concrete/Concrete - Cement Particle Board	10	1	60	30
100mm / 80kg/m^3	351 - 560	Aerated concrete/Concrete - Cement Particle Board	10	2	60	30

CERTIFICATE No CF 5659 FISCHERWERKE GMBH & CO. KG

FCFcl Cavity Clad – Floor Approval Matrix BS476: Part 20

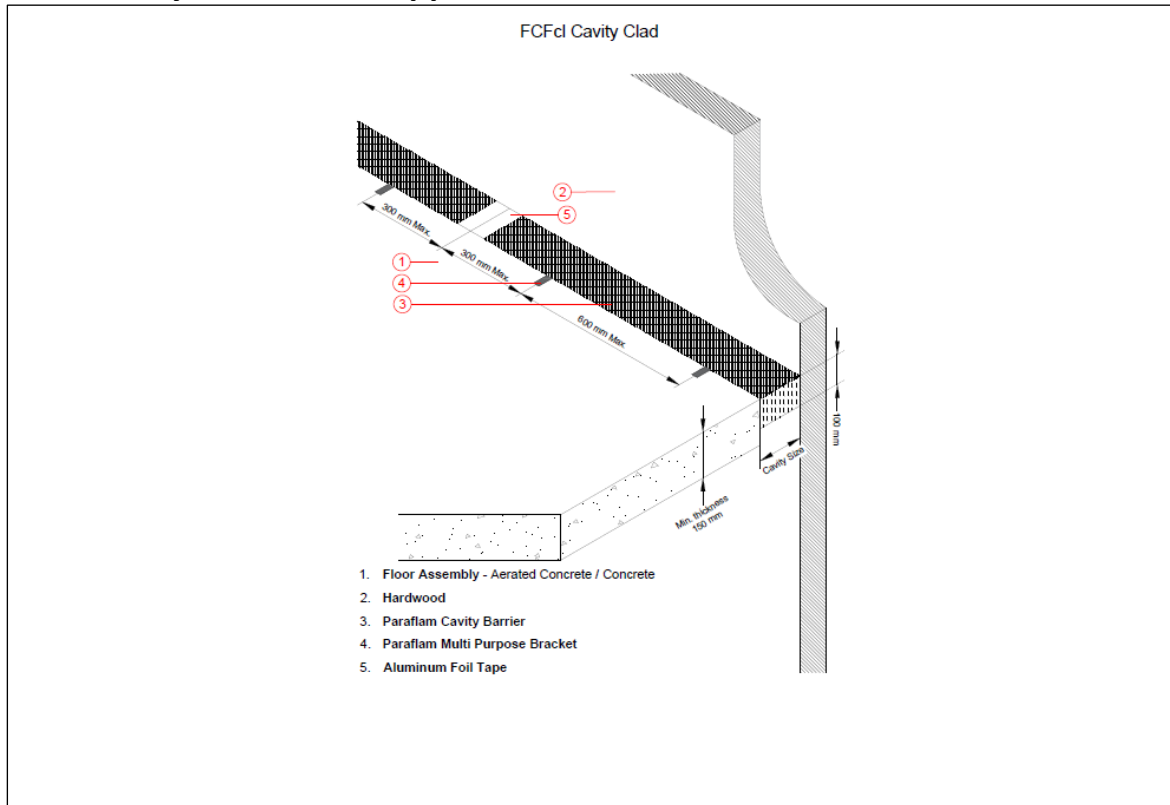


Joint Seal in Floors ≥ 150 mm thickness (min)

Min depth and density of FCFcl Cavity Clad	Joint width range mm	Element of Construction	Compression Minimum mm	Fixing Detail	Integrity min	Insulation min
100mm / 80kg/m ³	0 - 310	Aerated concrete/Concrete – Single sided softwood	10	N/A	60	30
100mm / 80kg/m ³	311 - 560	Aerated concrete/Concrete – Single sided softwood	10	2	60	30
100mm / 80kg/m ³	0 - 500	Aerated concrete/Concrete – Double sided softwood	10	2	45	30

CERTIFICATE No CF 5659 FISCHERWERKE GMBH & CO. KG

FCFcl Cavity Clad – Floor Approval Matrix BS476: Part 20

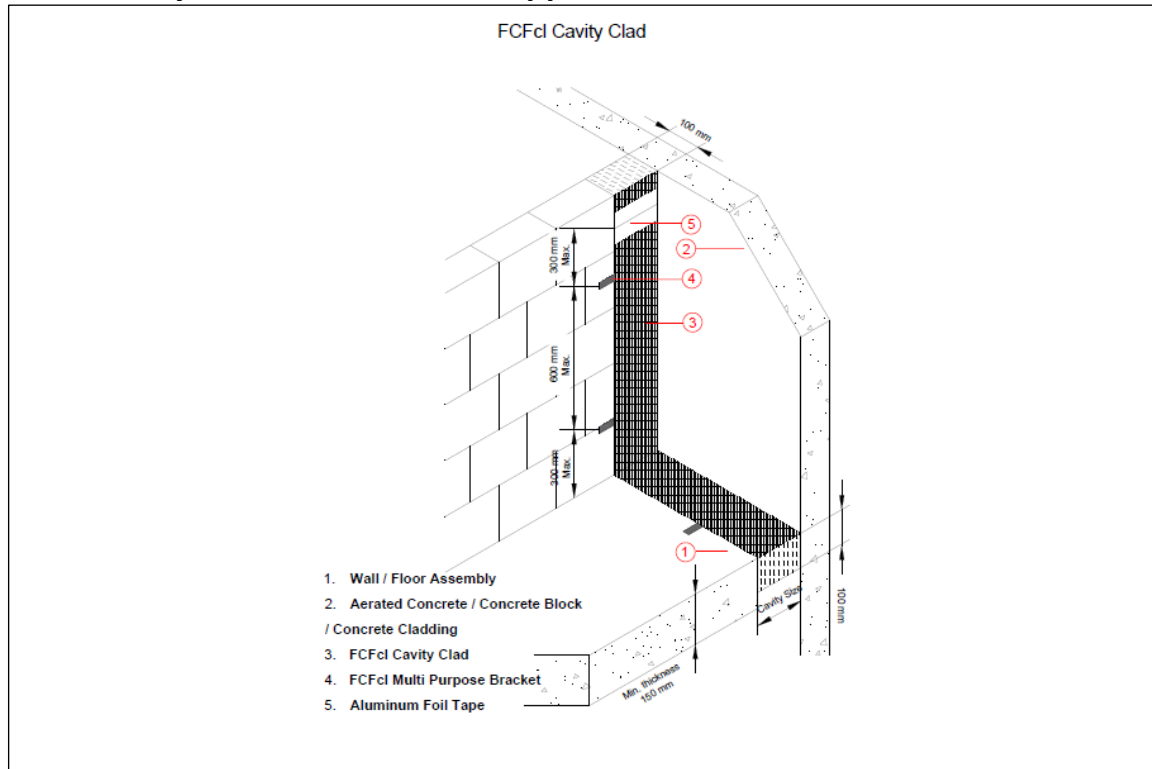


Joint Seal in Floors ≥ 150 mm thickness (min)

Min depth and density of FCFcl Cavity Clad	Joint width range mm	Element of Construction	Compression Minimum mm	Fixing Detail	Integrity min	Insulation min
100mm / 80kg/m ³	0 - 310	Aerated concrete/Concrete – Single sided hardwood	10	N/A	60	30
100mm / 80kg/m ³	311 - 560	Aerated concrete/Concrete – Single sided hardwood	10	2	60	30
100mm / 80kg/m ³	0 - 500	Aerated concrete/Concrete – Double sided hardwood	10	2	45	30

CERTIFICATE No CF 5659 FISCHERWERKE GMBH & CO. KG

FCFcl Cavity Clad – Floor & Wall Approval Matrix BS476: Part 20

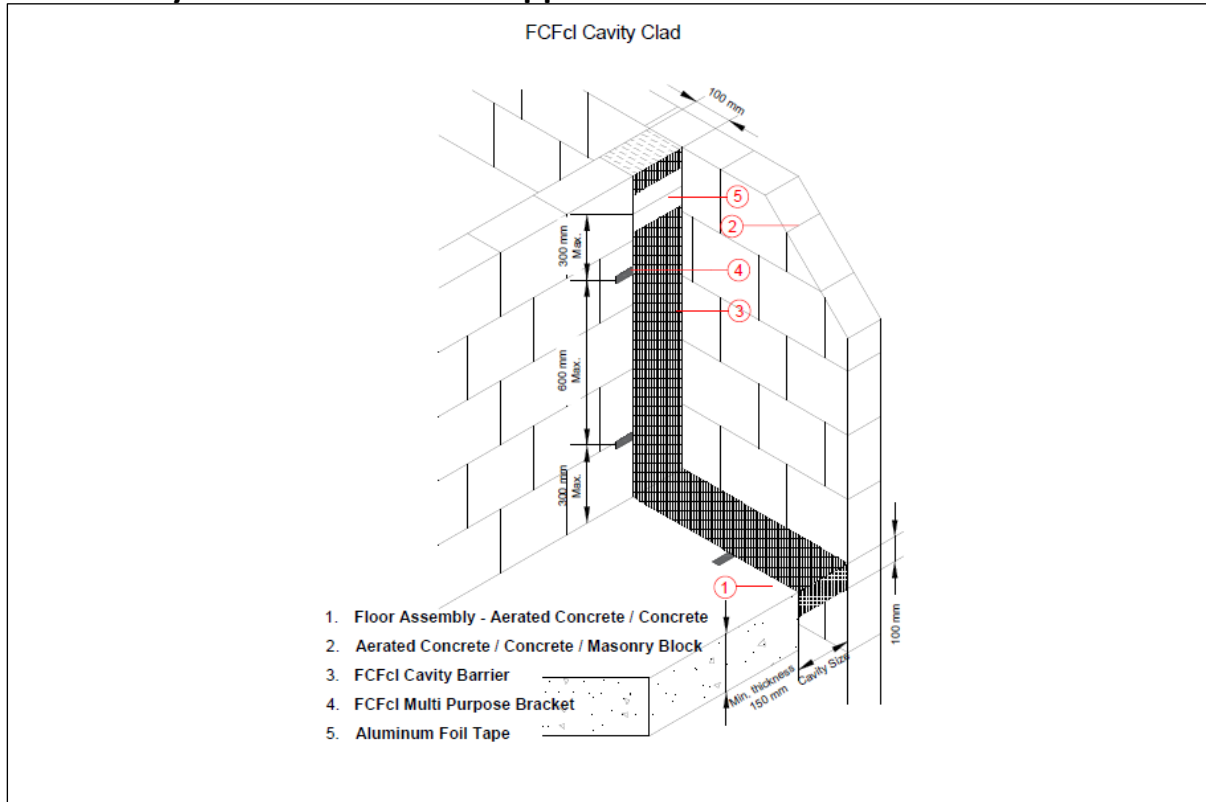


Combined Joint Seal in Walls & Floors ≥ 150 mm thickness (min)

Min depth and density of FCFcl Cavity Clad	Joint width range mm	Element of Construction	Compression Minimum mm	Fixing Detail	Integrity min	Insulation min
100mm / 80kg/m ³	0 - 150	Aerated concrete/Concrete - concrete cladding	10	N/A	120	60
100mm / 80kg/m ³	151 - 350	Aerated concrete/Concrete-concrete cladding	10	1	60	30
100mm / 80kg/m ³	351 - 560	Aerated concrete/Concrete-concrete cladding	10	2	60	30

CERTIFICATE No CF 5659 FISCHERWERKE GMBH & CO. KG

FCFcl Cavity Clad – Floor & Wall Approval Matrix BS476: Part 20

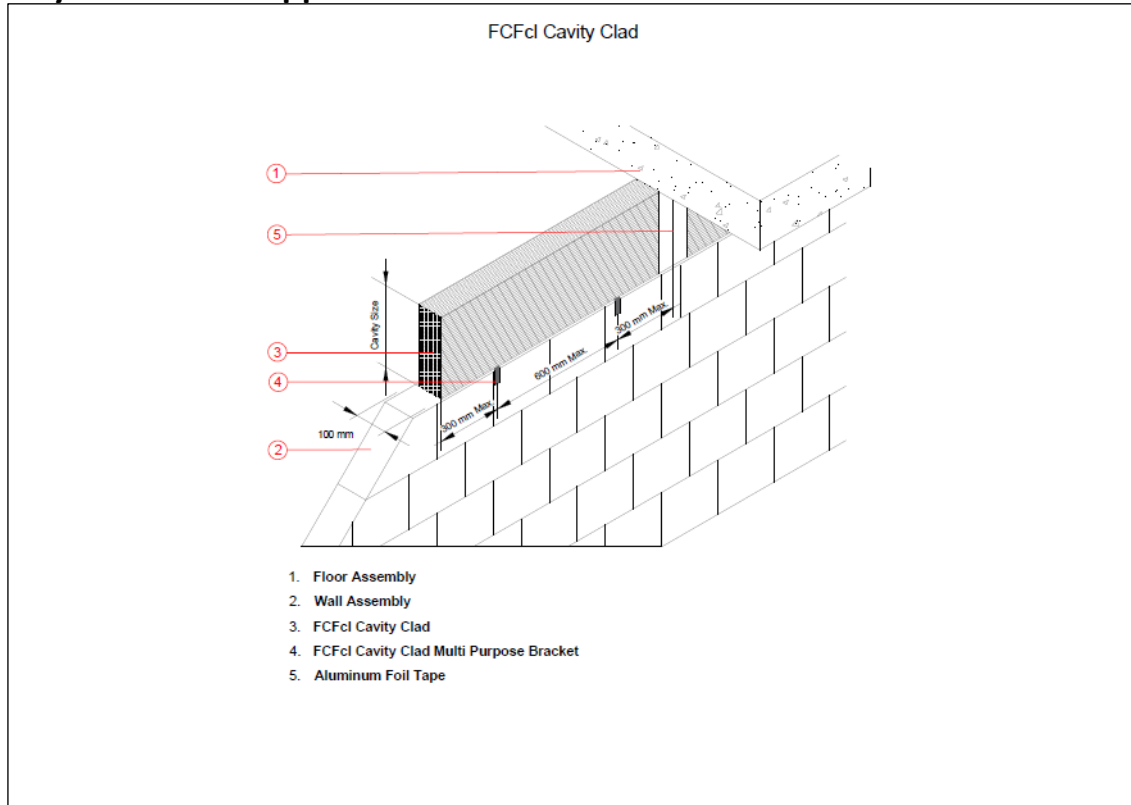


Joint Seal in Floors ≥ 250 mm thickness (min) & Walls thickness ≥ 150 mm

Min depth and density of FCFcl Cavity Clad	Joint width range mm	Element of Construction	Compression Minimum mm	Fixing Detail	Integrity min	Insulation min
100mm / 80kg/m ³	0 - 590	Aerated concrete/concrete - block	10	3	120	60

CERTIFICATE No CF 5659 FISCHERWERKE GMBH & CO. KG

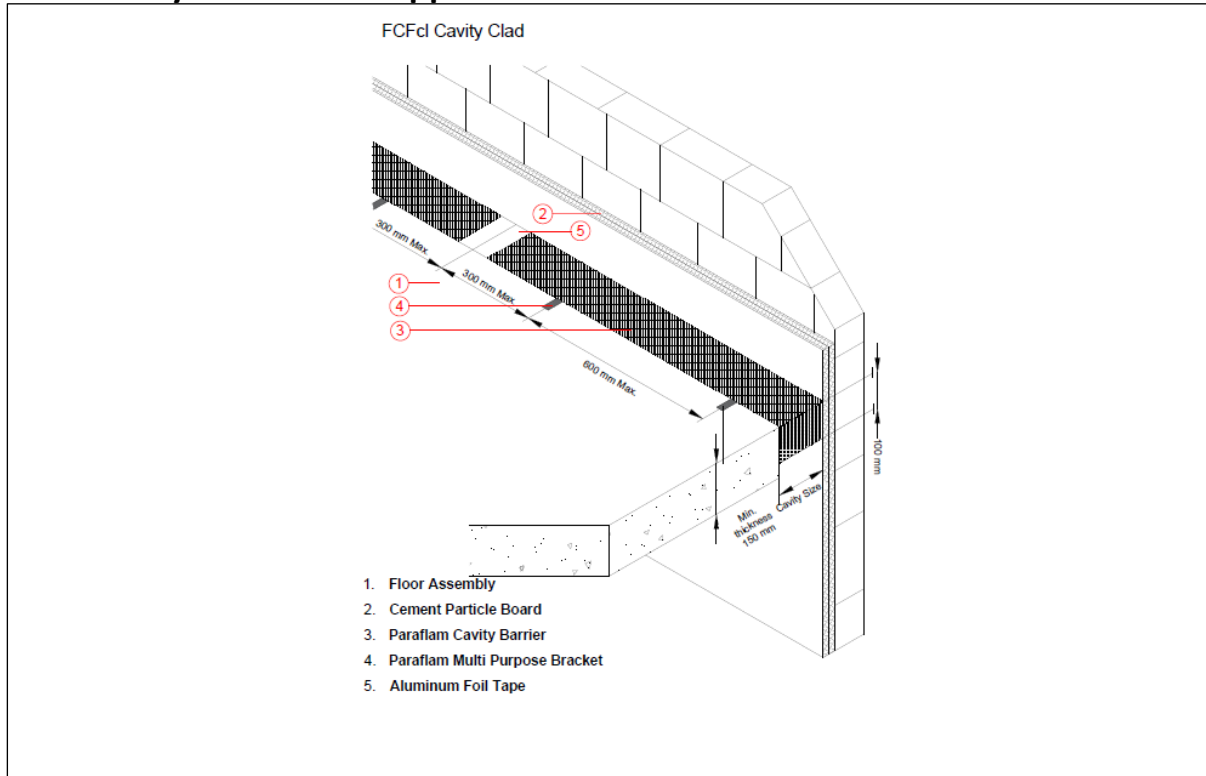
FCFcl Cavity Clad – Wall Approval Matrix BS476: Part 20



Joint Seal in Walls $\geq 150\text{mm}$ thickness (min)						
Min depth and density of FCFcl Cavity Clad	Joint width range mm	Element of Construction	Compression Minimum mm	Fixing Detail	Integrity min	Insulation min
100mm / 80kg/m ³	0 - 200	Aerated concrete/concrete – concrete	10	1	120	60
100mm / 80kg/m ³	0 - 200	Cement Particle Board - Concrete cladding	10	1	60	60
100mm / 80kg/m ³	0 - 200	Cement Particle Board – Aerated concrete	10	2	60	60

CERTIFICATE No CF 5659 FISCHERWERKE GMBH & CO. KG

FCFcl Cavity Clad – Floor Approval Matrix BS476: Part 20



Joint Seal in Floor ≥ 150 mm thickness (min)						
Min depth and density of FCFcl Cavity Clad	Joint width range mm	Element of Construction	Compression Minimum mm	Fixing Detail	Integrity min	Insulation min
100mm / 80kg/m ³	0 - 200	Cement Particle Board - concrete cladding	10	1	60	60
100mm / 80kg/m ³	0 - 200	Cement Particle Board – Aerated concrete	10	2	60	60



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FCFcl Cavity Clad – Approval Matrix Additional Characteristics

Air Permeability EN 1026:2000		
Pressure (Pa)	Leakage under positive pressure m3h-1m-1	Leakage under negative pressure m3h-1m-1
50	2.42	1.92
100	1.58	2.5
150	1.75	2.5
200	2	2.58
250	1.83	1.92
300	2.08	1.92
450	2.42	1.08
600	3.33	0.33



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FCFcl Cavity Clad – Approval Matrix Additional Characteristics

Additional Characteristics Scope		
Characteristics	Standard	Classification
Movement	EOTA EAD	<7.5%
Life Span	EOTA EAD	10 Years
Weathering, Service & Durability	EN 13162 or EN 14303, EN ISO 1519	Type Z ₁
Reaction to Fire	EN 13501-1	Euroclass A1
Resistance to Fire	EN 13501-2	Up to 120 mins
Thermal Properties	BS EN 13162:2012	0.034 W/mK
Acoustic Isolation	EN 10140-2/ EN ISO 717-1	D _{ne,w} = 31dB
Hygiene, health and environment	BWR3	IA1, S/W3
Release of dangerous substances	Directive 67/548/EEC and Regulation (EC) No 1272/2008	None
Recycled Content	N/A	97%