An Coimisiún Pleanála

FSC Report

ABP-322750-25

Appeal v Refusal:	Appeal v Refusal
Development Description:	Cavity Barrier Retrofit at Block 2, Ballsbridge Gardens. The provision of an alternative cavity barrier solution to what was approved in FSC 218/96, and which was granted on May 20th, 1996, in respect of the provision of 24 Apartments in a five-storey block at Block 2, Ballsbridge Gardens, Crampton Avenue, Shelbourne Road, Ballsbridge, Dublin 4. D04 F780.
Building Control Authority Fire Safety Certificate Application Number:	SN3027821 / FRV2509768DC
Appellant	Ballsbridge Gardens Management Ltd
Appellant's Agent	R.G. Greene and Associates
Building Control Authority:	Dublin City Council South
Inspector	Joe Ryan

Contents

1.0 **Introduction**

1.1. The appeal submitted to An Coimisiún Pleanála relates to a Revised Fire Safety Certificate Application for Block 2, Ballsbridge Gardens, Crampton Avenue, Shelbourne Road, Ballsbridge, Dublin 4, D04 F780. The building is an existing five storey building which consists of twenty-four apartments from ground to fourth floor level.

1.2. A Fire Safety Certificate was granted for the building on May 20th, 1996 – *FSC 218/96 - Application for a Fire Safety Certificate for twenty-four apartments in a five-storey block at G & T Crampton Ltd., Lands at Shelbourne Road, Ballsbridge, Dublin 4 – Block 2.*

The overall development at Ballsbridge consisted of two practically identical five-storey blocks. FSC 217/96 was granted for Block A on the site on the same day, May 20th, 1996. (Application for a Fire Safety Certificate for twenty-four apartments in a five-storey block at G & T Crampton Ltd., Lands at Shelbourne Road, Ballsbridge, Dublin 4 – Block 1.) The two applications operated in parallel.

1.3. The appeal relates to SN3027821 / FRV2509768DC:

Cavity Barrier Retrofit at Block 2, Ballsbridge Gardens. The provision of an alternative cavity barrier solution to what was approved in FSC 218/96, and which was granted on May 20th, 1996, in respect of the provision of 24 Apartments in a 5 storey block at Block 2, Ballsbridge Gardens, Crampton Avenue, Shelbourne Road, Ballsbridge, Dublin 4. D04 F780.

This Revised Fire Safety Certificate application was refused on May 16th, 2025. The reason for refusal was *failure to demonstrate the proposed works will comply with Part B3 of the Second Schedule of the Building Regulations*.

2.0 Information Considered

The information considered in this appeal comprised of the following:

- Report and drawings submitted to the BCA through the BCMS system for the refused Revised Fire Safety Certificate SN3027821 / FRV2509768DC.
- Appeal submission by R. G. Greene and Associates, on behalf of the Appellant, Ballsbridge Gardens Management Ltd., which was received by An Coimisiún Pleanála on 12/06/25.
- Fire Officer's Report on the Fire Safety Certificate Appeal received by An Coimisiún Pleanála from Dublin Fire Brigade on 07/07/2025.
- Reply to the Dublin Fire Brigade submission from R. G. Greene and Associates, on behalf of the Appellant Ballsbridge Gardens Management Ltd., which was received by An Coimisiún Pleanála on 07/08/25.
- An Coimisiún Pleanála Case File 322750-25.
- Relevant reports and drawings submitted to the BCA for the granted Fire Safety Certificate FSC 218/96 and the granted Fire Safety Certificate FSC 217/96 (Block 1). These were included in the refused Revised Fire Safety Certificate SN3027821 / FRV2509768DC submission.

3.0 Relevant History/Cases

3.1. In determining the appeal in relation to the refusal of Revised Fire Safety Certificate SN3027821 / FRV2509768DC, the previous granted Fire Safety Certificate FSC 218/96 for the development was reviewed where applicable. FSC 218/96 was granted for the building on May 20th, 1996:

Application for a Fire Safety Certificate for twenty-four apartments in a five-storey block at G & T Crampton Ltd., Lands at Shelbourne Road, Ballsbridge, Dublin 4 – Block 2.

FSC 217/96 was granted on May 20th, 1996 - *Application for a Fire Safety Certificate for twenty-four apartments in a five-storey block at G & T Crampton Ltd.,*

Lands at Shelbourne Road, Ballsbridge, Dublin 4 – Block 1. This is essentially a parallel application to FSC 218/96.

There are no An Coimisiún Pleanála decisions that may be of assistance to the Commission in determining the case that I am aware of.

4.0 Appellant's Case

- Firetite Testing
    - Firetite has been demonstrably proven by the results of independent testing as a material fit for purpose as a cavity barrier.
- TGD-B Section 0.1.4
    - The Fire Prevention Section of Dublin Fire Brigade did not take into account the provisions of TGD-B Section 0.1.4 which allows for the use of alternative design solutions, standards or methods of fire protection, provided the level of fire safety achieved is adequate to satisfy the requirements of the Building Regulations.
- TGD-B: 2020 Diagram 17 / Diagram 16
    - During construction the standard methods of compliance were not adhered to as there was:
        - A failure to install cavity barriers around openings.
        - A failure to close the top of the cavity.
        - A failure to protect PVC ventilation pipework within the cavity.
        - PVC windows were installed.

TGD-B: 2020 Diagram 17 compliance can only now be achieved by the total removal of all windows and doors to close the gap around the openings and by

partially removing the roof covering to close the cavity at the top of the walls. This potential solution would be prohibitively expensive and disruptive. TGD-B Diagram 16 compliance was only realistically feasible at construction stage.

- Alternative Solutions

    - The Fire Prevention Section of Dublin Fire Brigade did not offer an alternative solution to the methods proposed in TGD-B: 2020.

    - The proposed alternative method is a belt and braces solution to the cavity barrier issue. It encompasses all the technical fire resistance criteria of the standard TGD-B solutions.

- Height of the Building

    - The cavity wall construction is 10.8m in height. The BDA Agrément Cert specifies that the product is limited to being used in cavity walls up to 12m in height. This is as distinct from the use of the product in buildings of a specified height in accordance with the TGD-B: 2020 definition. i.e., It is the height of the cavity wall that's relevant, not the height of the building in terms of the TGD-B definition.

    - Section 3.2.5 of the BDA Agrément Cert refers to B3 of the Irish Building Regulations which in turn is a reference to TGD-B: 2020.

- Efectis Fire Test Report

    - Testing has been carried out by Efectis in accordance with BS 476-20.

    - Firetite achieved 30 minutes integrity and 30 minutes insulation in the test. This is in excess of the 30 minutes integrity and 15 minutes insulation required by Section 3.6.4.1 of TGD-B: 2024 - *Performance Requirements for Cavity Barriers*.

    - The European Method for testing for Cavity Barriers is *BS EN 1364 – Fire Resistance Tests for Non-Loadbearing Elements - Part 6 Open*

State Cavity Barriers. This was not published at the time of the Firetite test

- Relevant Standards

    - The test that was carried out on the Firetite product was the relevant test at the time.

    - The ETA Certification for the product is currently valid and is due for renewal later this year. Firetite will be tested at this time in accordance with the current standards. It is expected that Firetite will retain it's Class A2 s1,d0 status.

- Polystyrene Insulation

    - Firetite will adhere to the existing masonry and the polystyrene insulation.

- Methodology

    - Firetite is installed as a quickly-setting liquid material which gets into every area in the cavity itself.

    - The function of the material is not to act as a traditional cavity barrier but to accommodate a retrofit solution which will ensure that gaps around all openings will be fully sealed to the passage of fire or smoke.

    - Annex A of ETA-21/0540 lists considerations concerning installation.

    - The Firetite product is installed by approved and certified installers, appointed by ECON, the product distributor in Ireland. This is in conjunction with independent certification and the manufacturer's instructions.

5.0 Building Control Authority's Case

BCA Case:

The BCA make the following points in relation to the appeal:

- BDA Agrément Cert:
    - The BDA Agrément Cert does not clearly confirm the product can be used for apartment buildings over 12m in height. The BCA indicate that parts of the external wall appear to exceed 12m. The use of the product in buildings over 12m in height would require suitable assessment by the Agrément Holder. This has not been provided.
    - Section 2.2.8 of the BDA Agrément Cert states that there are no height or boundary restrictions for the system which appears to contradict what is stated in the scope of the document.
    - Section 3.2.5 of the BDA Agrément Cert does not specifically refer to the Irish Document TGD-B.
    - No NSAI Agrément Certificate was provided for the product.

- Efectis Fire Test Report:
    - The Efectis Fire Test Report refers to an indicative test which does not fall under UKAS accreditation.
    - Section 12 of the Efectis Fire Test Report underlines the limitation of the test in terms of suitability for an external cavity block/brick wall as distinct from the stud partition wall the test was carried out on.

- European Technical Assessment ETA-21/0540
    - Section 3.1 of the of the European Technical Assessment ETA-21/0540 refers to the EN 13823: 2010 + A1: 2014 and EN ISO 1716: 2010. These standards have been superseded by EN 13823: 2020 + A1: 2022 and EN ISO 1716: 2018.
    - Section 3.1 of the European Technical Assessment ETA-21/0540 states that the product is valid for applications on or between materials

classified as A1 or A2 - s1, d0. The polystyrene insulation in the cavity does not meet this classification.

- Firetite Clay Foam Insulation
    - The brochure refers to the EN 13823: 2010 + A1: 2014 and EN ISO 1716: 2010. These standards have been superseded by EN 13823: 2020 + A1: 2022 and EN ISO 1716: 2018.
    - Diagrams show Firetite installed between masonry walls. In the proposed application the Firetite product will have to adhere to the polystyrene insulation.

- Firetite Cavity Wall Insulation – Indicative Fire Resistance Test
    - Only refers to an indicative test.
    - The test does not match the proposed use.

- Firetite Case Studies
    - The case studies supplied appeared to apply to situations where the function was to upgrade the thermal performance of the cavity wall rather than retrofit an equivalent cavity barrier system.

- Methodology
    - No methodology specific to the existing building has been provided for installing the product. It has not been outlined how the 10mm gaps at the jambs will be fully filled/sealed and how the cavity will be fully filled to close the cavity at the top of the wall.

6.0 Assessment

6.1. Having regard to the nature of the appeal which is against the refusal of SN3027821 / FRV2509768DC, and having considered the drawings, details and submissions on the file and having regard to the provisions of Article 40 of the Building Control Regulations 1997, as amended, I am satisfied that the determination by the Commission of this application as if it had been made to it in the first instance would not be warranted. Accordingly, I consider that it would be appropriate to use the provisions of Article 40(2) of the Building Control Regulations, 1997, as amended.

6.2. **Assessment:**

The Revised Fire Safety Certificate Application SN3027821 / FRV2509768DC will be primarily assessed under the following headings:

1. Building Height
2. Building Regulations
3. Standards
4. Fire Test Reports
5. Full-fill of the External Cavity Wall
6. Methodology.

1. Building Height

The BDA Agrément Cert Section 2.2.1.3 states that the product can be used *in cavity walls up to and including 12m in height*. Dublin Fire Brigade state that the walls appeared to exceed 12m in height but gave no basis for this assessment. The height of the cavity walls has been specified by the appellant as 10.8m. The height being referenced by the BDA Agrément Cert is clearly the height of the cavity walls and not the height of the building as defined in TGD-B 2006 (Reprinted 2020). Thus, the product, in relation to the height of the cavity walls, is suitable for use in the Ballsbridge Gardens development.

2. Building Regulations

Dublin Fire Brigade state in their submission that the BDA Agrément Cert does not specifically refer to Technical Guidance Document B (Fire Safety). Section 3.2.5 of the

BDA Agrément Cert, *Ireland Building Regulations 1997 and Subsequent Amendments* does state that the system complies with *B3(3) Internal Fire Spread (Structure) – A wall incorporating the system can inhibit the unseen spread of fire and smoke within concealed spaces*. This is clearly a reference to Building Regulation B3(3) of the Irish Building Regulations which in turn is the premise on which Section 3.3 of TGD-B Concealed Spaces (Cavities) is based. Thus, the BDA Agrément Cert certifies compliance for Firetite with the Irish Building Regulations for this application.

3. Standards

Dublin Fire Brigade note that no NSAI Agrément Cert was provided for the Firetite product. However, a European Technical Assessment document ETA-21/0540 and a BDA Agrément Cert have been submitted in support of the product. Both European Technical Assessments and Agrément Certs are recognised in TGD-B to the extent that they relate to the consideration at hand. Thus, the recognition of the Class A2, s1, d0 reaction to fire of the product by both the European Technical Assessment and the Agrément Cert is relevant.

The European Technical Assessment for Firetite refers to EN 13823: 2010 + A1: 2014 and EN ISO 1716: 2010. These standards have since been superseded by the current standards EN 13823: 2020 + A1: 2022 and EN ISO 1716: 2018. However, these standards were relevant at the time of the assessment of the product and therefore are relevant.

4. Fire Tests

Dublin Fire Brigade correctly points out that the Efectis Fire Test Report EUI-23-S-000019 applies to a test using plasterboard as district from concrete or block walls. They also correctly point out that the test is indicative and does not fall under UKAS accreditation. However, the Appellant in their submission of August 7th, 2025, in their reply to the Fire Officer's Report, have included a section from a Cavity Fire Barrier Test Report. While the full report is not included, there is a clear indication that the Firetite product would successfully meet the requirements for a Cavity Barrier in accordance with BS 476-20, in a test involving concrete or block walls as distinct from plasterboard walls. The use of Firetite in a concrete/block scenario achieved 30

minutes integrity and insulation, which meets and exceeds the 30 minutes integrity and 15 minutes insulation requirement for a cavity barrier in TGD-B.

5. Full-Fill

Dublin Fire Brigade state that the proposed full-fill of the existing external cavity walls will not result in the Firetite product being installed between a non-combustible inner leaf and a non-combustible outer leaf as specified in the test documentation. This is because of the existing 50mm polystyrene insulation that is attached to the inner leaf of the external cavity wall. The Appellant states that Firetite will adhere to the existing insulation without offering any information to clarify this statement.

Whether the product fully adheres to the existing 50mm polystyrene insulation in the wall does not seem relevant. As the product is a liquid at installation stage and it is designed to fill in all the cracks and gaps in the wall, the adherence to the 50mm polystyrene insulation is not essential. What is essential is that it fills the cavity between the external cavity wall and the internal cavity wall/50mm polystyrene insulation, thereby eliminating any cavity in the wall.

6. Methodology

Dublin Fire Brigade state in their submission that no methodology specific to the existing building has been provided for installing the Firetite product. However, the following is noted:

- Section 2.4 of the BDA Agrément Cert addresses the installation under the following headings:
    - Project Specific Installation Considerations
    - Preparation
    - Outline Installation Procedure
        - Drilling
        - Filling Procedure
    - Finishing
    - Post-Installation Checks
- Annex A of the European Technical Assessment for the product, ETA-21/0540, gives considerations concerning the installation of the product.

- The Appellant points out that Firetite is only installed in accordance with the Manufacturer's Instructions by approved and certified installers. These approved and certified installers are appointed by Econ the distributors of the product in Ireland and the UK.

In the sections above the various arguments made by the Appellant and Dublin Fire Brigade have been assessed, and it is clear that the Appellant has made a very strong and convincing case in terms of compliance with the Building Regulations.

In addition to the foregoing the following should also be noted:

- TGD-B: 2006 (Reprinted 2020) Section 3.3.1 states that:
  Hidden voids in the construction of a building provide a ready route for smoke and flame spread. As the spread is concealed it presents a greater danger than would a more obvious weakness in the fabric of the building. Provisions are made to restrict this by interrupting cavities which could form a pathway around a barrier to fire and subdivide external cavities.
- TGD-B: 2006 (Reprinted 2020) Section 3.0.5 defines a Concealed Space (cavity) as *a space enclosed by elements of a building (including a suspended ceiling) or contained within an element but not a room, cupboard, circulation space, protected shaft or space within a flue, chute, duct, pipe or conduit.*
- TGD-B: 2006 (Reprinted 2020) Section 3.0.5 defines a Cavity Barrier as a *construction provided to close a concealed space against penetration of smoke or flame or provided to restrict the movement of smoke or flame within such a space.*

If the Firetite and the 50mm polystyrene insulation completely fills the cavity between the inner leaf and the outer leaf of the building, then there is no longer a cavity between the two walls. If there isn't a cavity, then why is a cavity barrier required? Thus, it can be argued that Firetite does not need to have any fire classification as it is not acting as a cavity barrier. If a solid combustible product did fill the entire cavity, then, in the event of an incident, it would probably only burn at the edges, as the fire couldn't grow as there is no cavity through which a fire could spread easily.

(Diagram 17 allows thermal insulating material in the cavity without any requirement for it to have a minimum fire classification. Diagram 17 allows for a cavity not to be closed at the top, if the cavity is *totally filled with insulation*.)

Furthermore, Diagram 17 of TGD-B: 2006 (Reprinted 2020) does not specify that cavity barriers are required to close the cavity. It states that the external cavity wall should be closed at the openings and at the top, but it doesn't state that cavity barriers are required around the openings and at the top. It does however limit the type of material that can be placed in or exposed in the cavity, thereby limiting the material that can be used to close the cavity. i.e., a timber window could close the cavity but not a PVC window.

The original Fire Safety Certificate 218/96 granted by Dublin Fire Brigade on May 20th, 1996, stated that the cavities in the external wall would *be closed at all opes and at the top of the wall. i.e., complying with Diagram B 3.7*. Diagram B 3.7 from TGD-B 1991 is a forerunner to Diagram 17 of TGD-B: 2006 (Reprinted 2020). Diagram B 3.7 also refers to closing the cavity rather than specifically requiring cavity barriers to close the cavity.

In summary, in addition to the assessment of the arguments put forward by the BCA and the Appellant, the following points are pertinent to the external cavity wall issue:

- It can be argued that as there is no cavity in the external wall with the Firetite product installed, then no cavity barriers are required.
- Cavity barriers are not strictly required for compliance with Diagram 17 of TGD-B: 2006 (Reprinted 2020). Closing the cavity is what is specified in the diagram.
- Even if the external cavity wall is not 100% filled with the Firetite product it is difficult to see how the fire would spread through an external cavity wall which is predominantly filled with Firetite. Small cracks or gaps that may appear within the wall would not be sufficient to allow fire spread.

- The fact that the product has a Class A2, s1, d0 reaction to fire and has achieved 30 minutes integrity and insulation in a BS 476-20 cavity barrier fire test, strengthens the case for the Appellant.

Ultimately, the objective here is to comply with Building Regulation B3 (3), to ensure that there is no unseen spread of fire in the external cavity wall. The filling of the existing cavity in the external wall with a Class A2, s1, d0 material, correctly fitted, should achieve this objective.

Therefore, the Revised Fire Safety Certificate SN3027821 / FRV2509768DC for the alternative Cavity Barrier Retrofit Solution should be granted.

7.0 Recommendations

Based on the above, I recommend that An Coimisiún Pleanála grant the Revised Fire Safety Certificate SN3027821 / FRV2509768DC.

8.0 Reasons and Considerations

Having regard to the submissions made in connection with the Fire Safety Certificate application and the appeal, it is considered that in relation to:

The Refusal of the Revised Fire Safety Certificate SN3027821 / FRV2509768DC:

Cavity Barrier Retrofit at Block 2, Ballsbridge Gardens. The provision of an alternative cavity barrier solution to what was approved in FSC 218/96, and which was granted on May 20th,1996 in respect of the provision of 24 Apartments in a five-storey block at Block 2, Ballsbridge Gardens, Crampton Avenue, Shelbourne Road, Ballsbridge, Dublin 4. D04 F780:

The Appellant has demonstrated compliance with the Building Regulations.

9.0 Condition

Direct the Building Control Authority to issue the Revised Fire Safety Certificate SN3027821 / FRV2509768DC.

10.0 Sign off

I confirm that this report represents my professional assessment, judgement and opinion on the matter assigned to me and that no person has influenced or sought to influence, directly or indirectly, the exercise of my professional judgement in an improper or inappropriate way.

Joe Ryan
28th October, 2025.