

The Building Test Centre

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LETTER OF CONFORMITY BTC 13529LC

SOUND INSULATION ESTIMATES FOR BRITISH GYPSUM SHAFTWALL SYSTEMS

SYSTEM DESCRIPTIONS

British Gypsum ShaftWall incorporating a triple layer of 15mm Gyproc FireLine on the corridor side, with and without 25mm Isowool Acoustic Partition Roll (1200) in the cavity.

System 1: British Gypsum ShaftWall on Gypframe 60170 I Stud framework. System 2: British Gypsum ShaftWall on Gypframe 70170 I Stud framework. System 3: British Gypsum ShaftWall on Gypframe 92190 I Stud framework.

The exact systems described above have not been subjected to a laboratory acoustic test in accordance with BS EN 140-3:1995.

Substantiation is based mainly on test reports BGATR 1633/BTC 189LC and BTC 13465A, which show similar British Gypsum ShaftWall constructions on Gypframe 146Tl90 Tabbed I Studs (BGATR 1633/BTC 189LC was clad in a double layer of 15mm Gyproc FireLine and BTC 13465A was clad in a triple layer of 15mm Gyproc FireLine) and test reports BGATR 1475/BTC 190LC and BTC 13426A, which show the corresponding constructions with 25mm Isowool Acoustic Partition Roll (1200) in the cavity.

These systems achieved the following acoustic performances:

BGATR 1633/BTC 189LC	Rw	48dB
BTC 13465A	Rw	49dB
BGATR 1475/BTC 190LC	Rw	50dB
BTC 13426A	Rw	50dB

By comparing the laboratory acoustic test results for the above systems the difference in performance can be determined. Assuming the difference in performance is constant, it can be applied to the existing double layer 15mm Gyproc FireLine British Gypsum ShaftWall system acoustic ratings.

Reference is also made to a large body of acoustic test data that enables us to form an opinion that the specifications detailed within the SYSTEM DESCRIPTIONS above are capable of achieving the following performances.

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RESULTS

	Without insulation Rw dB	With insulation, Rw dB
System 1: British Gypsum ShaftWall on Gypframe 60170 I Stud framework.	43	45
System 2: British Gypsum ShaftWall on Gypframe 70170 I Stud framework.	43	45
System 3: British Gypsum ShaftWall on Gypframe 92190 I Stud framework.	45	46

If tested we would expect to achieve an Rw figure within one or two decibels of the estimated figure.

LIMITATIONS

This letter is issued on the basis of information to hand at the time of issue. If contradictory evidence becomes available to the test house then the letter will be unconditionally withdrawn. Similarly, the letter is invalidated if the proposed construction is subsequently tested since the actual test data is deemed to take precedence over an expressed opinion. The opinions and interpretations expressed in this letter are outside the scope of UKAS accreditation.

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Customer: British Gypsum Limited

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