

LETTER OF CONFORMITY BTC 183LC

Gyproc one and a half hour shaftwall system incorporating Gyproc 146T190 metal studs at 600mm centres - **SOUND INSULATION.**

The system described above has been subjected to an airborne sound insulation test in accordance with BS 2750:Part 3 see test report BGATR 1648 attached. However, subsequent to the time of test, the manufacturing process has changed for the 12.5mm Gyproc Fireline product. The change in manufacture has led to a reduction in the density of the board from approx. 11 kg/m² to 9.7 kg/m².

As the board density has changed this will affect the sound insulation of the system. Taking the most cautious view of the effect of a lighter weight leaf in this structure, we calculate the loss of sound insulation of the whole structure as the loss experienced by the affected leaf i.e. the reduction caused by lower mass. This is calculated as 20 Log m (where m = surface mass). Hence for Leaf 1 the loss will be 1.1 dB and for Leaf 2 there will be no loss. Hence overall we would expect a loss of 1 dB on the Rw rating.

RESULT

Rw = 48 dB

We would expect the spectral values to lie 1.1 dB lower than the values in BGATR 1648 with a variation of +/- 2 dB.

LIMITATIONS

This letter is issued on the basis of test data and 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 If contradictory evidence becomes available to the test house then the letter will be unconditionally withdrawn.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 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 NAMAS accreditation.

Issued by



Paul Howard B.Sc. (Hons.) , MIOA
Test Services Manager

Date:

20-May-96

The information contained in this report is not intended to convey the complete and detailed fixing and/or application requirements of British Gypsum or other supplier's materials. For full specification details, please consult the latest relevant Company trade literature

Acoustics Test Report Number 1648 Date 07/11/90

LABORATORY AIRBORNE SOUND INSULATION MEASUREMENTS ON A 1.5 HOUR SHAFTWALL WITH A 15mm DEFLECTION HEAD INCORPORATING FIRE STOP RETAINING CHANNEL (146TI90).

Test carried out for

British Gypsum Ltd.,
Marketing Dept.



Project Manager (Acoustics)



British Gypsum Limited,
Research & Development Department,
East Leake, Loughborough, Leics. LE12 6JT, England.

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ACOUSTIC TEST REPORT

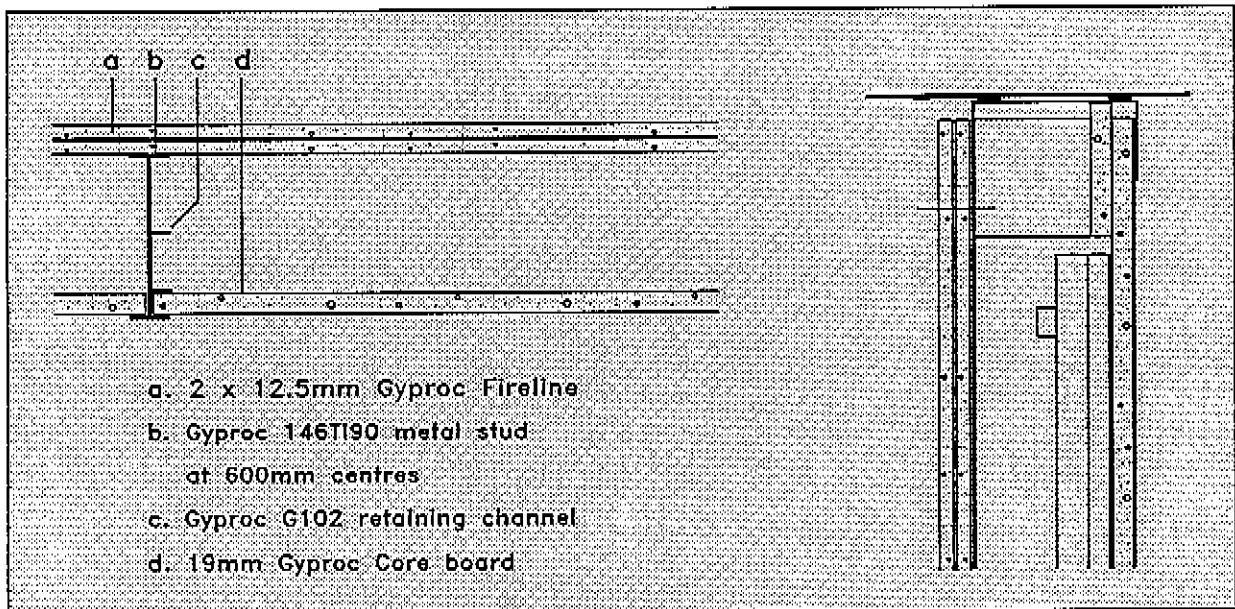


Test for : British Gypsum Ltd., Marketing Dept. Test Date : 24 October 1990

Laboratory Test Code : H435.40 Test carried out by : Acoustic Services, British Gypsum Ltd.

LABORATORY AIRBORNE SOUND INSULATION MEASUREMENTS ON A 1.5 HOUR SHAFTWALL WITH A 15mm DEFLECTION HEAD INCORPORATING FIRE STOP RETAINING CHANNEL (146TI90).

Description: Gyproc 146TI90 studs at 600mm centres located between Gyproc 148EDC90 channel at the head and Gyproc 148C55 channel at the base of the aperture. 19mm Gyproc core board (16.00 kg/m²) inlaid between the I stud and held in place with Gyproc G102 retaining channel. A double layer of 12.5mm Gyproc Fireline board (13.75 kg/m²) screw fixed to the room side of the I studs. 15mm deflection head detail see diagram. Joints of the outer 12.5mm Gyproc Fireline board filled and the perimeter sealed with Gyproc Sealant.



RESULT: $R_w = 49 \text{ dB}$ $STC = 49$ $dB(A) = 48.1$

Tested in accordance with BS 2750:Part 3:1980, ISO 140/111-1978.

Test Data

1/3 Oct.	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000 Hz
R dB	26	33	39	40	40	39	45	49	49	50	53	56	55	52	48	49	53	55

Test Method: the test specimen (2.4m x 3.6m) is constructed in a wall dividing two reverberant rooms of approximately 109m³ and 62m³. The accuracy of the test method conforms to BS 2750:Part 2:1980. Further information is available from the Acoustics Laboratory.

Note: This laboratory test report is not a guarantee of on site performance which may be affected by associated structure when the construction is incorporated within a building. In addition, to achieve optimum sound insulation, all air paths must be sealed.



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TESTING
 No. 0296

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 Project Manager (Acoustics)

