

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

1519

Date

04/07/90

LABORATORY AIRBORNE SOUND INSULATION
MEASUREMENTS ON A 198mm STAGGERED STUD
PARTITION WITH 25mm GYPGLAS 1200 IN THE CAVITY.

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



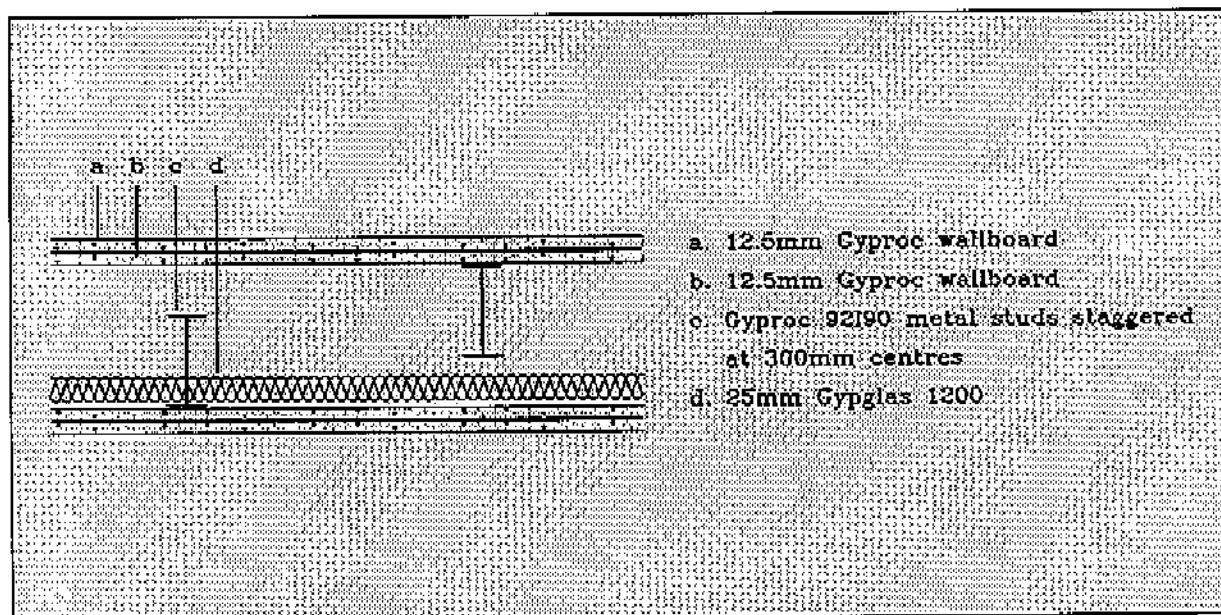
Test for: British Gypsum Ltd, Marketing Department.

Laboratory Test Code = H422.13

Test Date = 20 June 1990

LABORATORY AIRBORNE SOUND INSULATION MEASUREMENTS ON A 198mm STAGGERED STUD PARTITION WITH 25mm GYPGLAS 1200 IN THE CAVITY.

Description: Gyproc 148C55 channel screw fixed to the head and base of the aperture at 600mm centres. Gyproc 146S55 stud screw fixed to the sides of the aperture at 600mm centres. Gyproc 92I90 stud located each side of the channel at 600mm centres, staggered by 300mm and held in place by 1 stud retaining clips. 25mm Gypglas 1200 (0.35 kg/m^2) placed in the cavity. A double layer of 12.5mm Gyproc wallboard (10.21 kg/m^2) screw fixed to each side of the metal stud frame. Joints of the outer layer of 12.5mm Gyproc wallboard filled and the perimeter sealed with Gyproc Sealant.



- a. 12.5mm Gyproc wallboard
- b. 12.5mm Gyproc wallboard
- c. Gyproc 92I90 metal studs staggered at 300mm centres
- d. 25mm Gypglas 1200

RESULT: $R_w = 61 \text{ dB}$ $STC = 61$ $dB(A) = 58.5$

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	33	39	45	47	51	54	60	64	65	67	69	70	71	71	68	61	63	67

The adverse deviation at 100 Hz is 9 dB.

Test Method: the test specimen (2.4m x 3.6m) is constructed in a wall dividing two reverberant rooms of approximately 109m^3 . 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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Frank P. ROYLE
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Form Ref 6318

Addendum To BGATR 1519

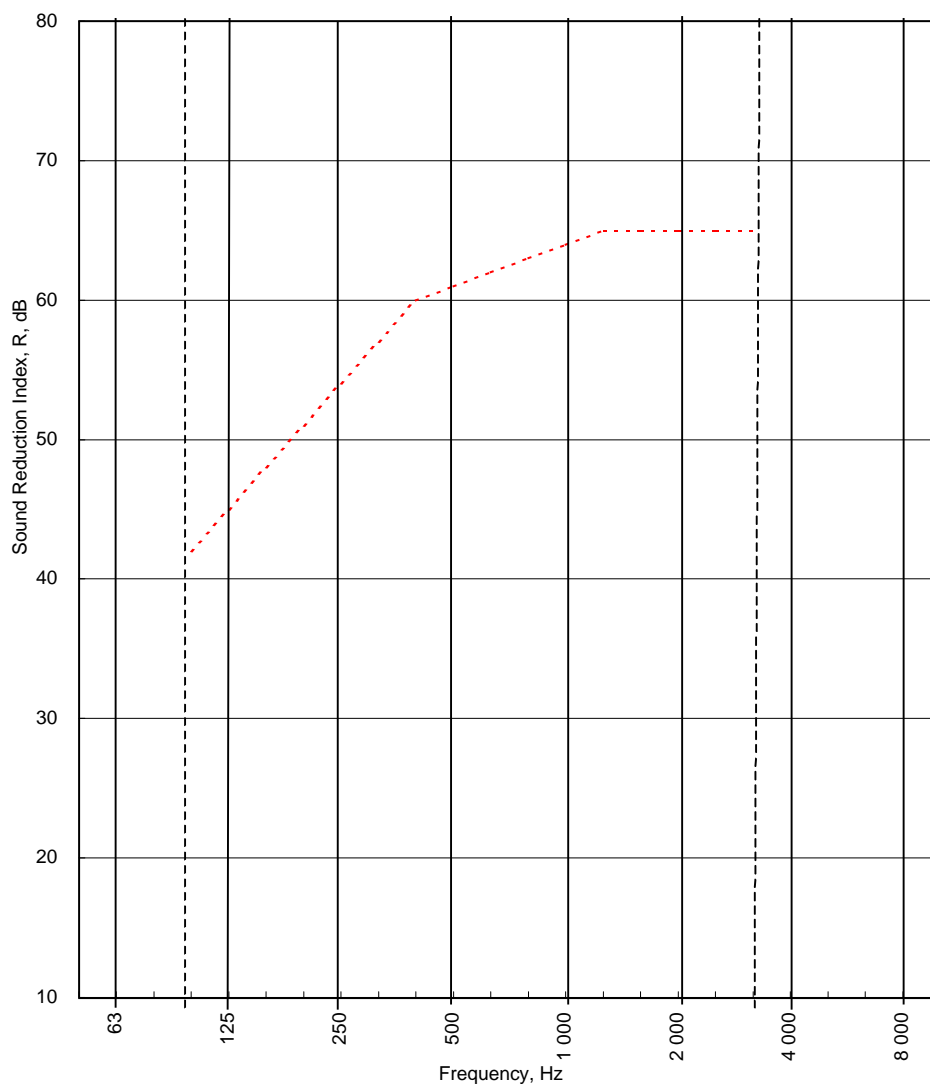
Ctr CALCULATION

Freq Hz	Source dB	Rec. (uc) dB	Bgrnd dB	Rec. (corr) dB	Rev.time Sec	Corr. dB	R dB	U.Dev. dB	R 1/1Oct dB
50									
63									
80									
100							33.0	9.0	
125							39.0	6.0	
160							45.0	3.0	
200							47.0	4.0	
250							51.0	3.0	
315							54.0	3.0	
400							60.0		
500							64.0		
630							65.0		
800							67.0		
1 000							69.0		
1 250							70.0		
1 600							71.0		
2 000							71.0		
2 500							68.0		
3 150							61.0	4.0	
4 000									
5 000									
6 300									
8 000									
10 000									

Single Figure Ratings BS EN ISO 717-1: 1997	Rw dB 61	C dB -3	Ctr dB -10	Total U. Dev., dB	32
<div style="border: 1px solid black; padding: 5px; width: fit-content;"> Rw + Ctr = 51 </div>		<div style="border: 1px solid black; padding: 5px;"> Calculated By: _ Franklin Sanicharane Checked By: _ Bob Allen Test Standard: BS 2750: Part 3: 1980 Test Procedure: 2750/3 issue 4 Worksheet: ctr calculation.xls </div>			

Test Code:
Test Date:

Freq. Hz	R dB
50	
63	
80	
100	33.0
125	39.0
160	45.0
200	47.0
250	51.0
315	54.0
400	60.0
500	64.0
630	65.0
800	67.0
1 000	69.0
1 250	70.0
1 600	71.0
2 000	71.0
2 500	68.0
3 150	61.0
4 000	
5 000	
6 300	
8 000	
10 000	



----- Curve of reference values (ISO 717-1)

Rating according to
BS EN ISO 717-1:1997

R_w (C;C_{tr}) = 61 (-3;-10) dB

Max dev. dB at Hz

Evaluation based on laboratory
measurement results obtained by
an engineering method:

C₅₀₋₃₁₅₀ = dB

C₅₀₋₅₀₀₀ = dB

C₁₀₀₋₅₀₀₀ = dB

C_{tr,50-3150} = dB

C_{tr,50-5000} = dB

C_{tr,100-5000} = dB