

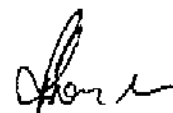
The information contained in this report is not intended to convey the complete and detailed fixing and/or application requirements of British Gypsum or other supplier's materials. For full specification details, please consult the latest relevant Company trade literature

Acoustics Test Report Number 1514 Date 17/04/90

LABORATORY AIRBORNE SOUND INSULATION  
MEASUREMENTS ON A 122mm 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



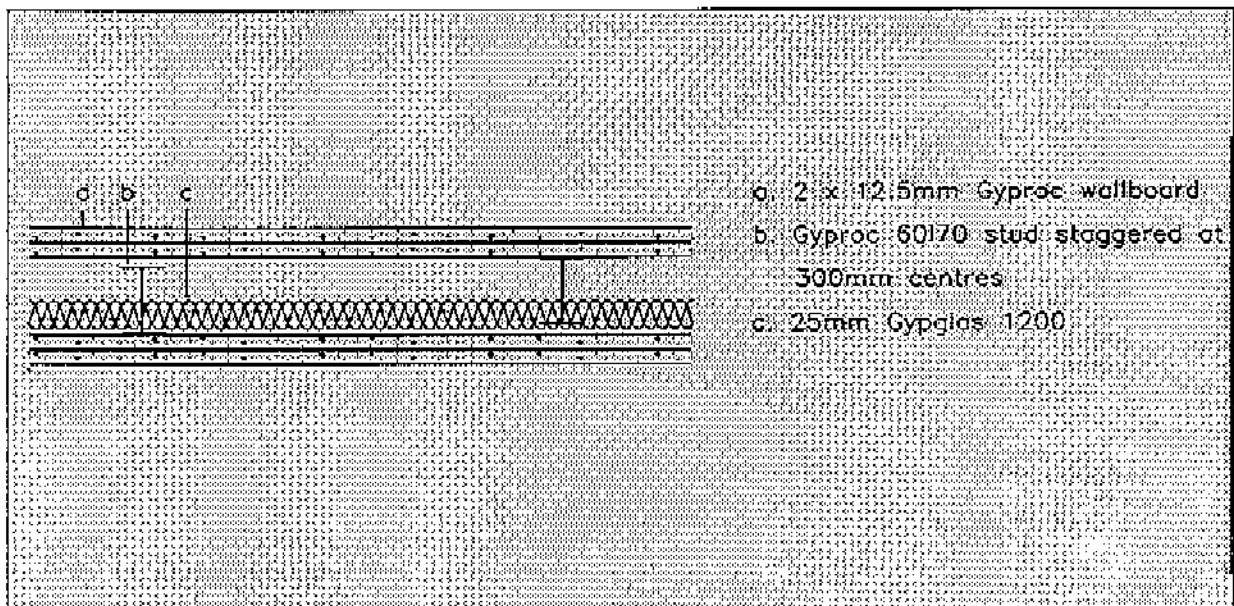
Test for: British Gypsum Ltd, Marketing Department.

Laboratory Test Code = H422.8

Test Date = 12 April 1990

## LABORATORY AIRBORNE SOUND INSULATION MEASUREMENTS ON A 122mm STAGGERED STUD PARTITION WITH 25mm GYPGLAS 1200 IN THE CAVITY.

**Description:** Gyproc 72C55 channel screw fixed to the head and base of the aperture at 600mm centres. Gyproc 70S55 stud screw fixed to the sides of the aperture at 600mm centres. Gyproc 60I70 stud located each side of the channel at 600mm centres, staggered by 300mm and held in place by I stud retaining clips. 25mm Gypglas 1200 ( $0.38 \text{ kg/m}^2$ ) placed in the cavity. A double layer of staggered 12.5mm Gyproc wallboard ( $10.09 \text{ kg/m}^2$ ) screw fixed to each side of the metal stud frame. Joints of the outer 12.5mm Gyproc wallboard filled and the perimeter sealed with Gyproc Sealant.



**RESULT:**  $R_w = 57 \text{ dB}$   $STC = 58$   $dB(A) = 54.5$

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	28	35	41	44	49	50	55	61	62	67	69	70	72	72	66	58	62	65

\* = result suppressed by the limits of the laboratory owing to the high performance of the sample.

**Test Method:** the test specimen (2.4m x 3.6m) is constructed in a wall dividing two reverberant rooms of approximately  $109 \text{ m}^3$ . The accuracy of the test method conforms to BS 2750:Part 2:1980. Further information is available from the Acoustic 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.



Research & Development Department  
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*P. Royle*  
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 Project Manager (Acoustics)



Form B-1-51978

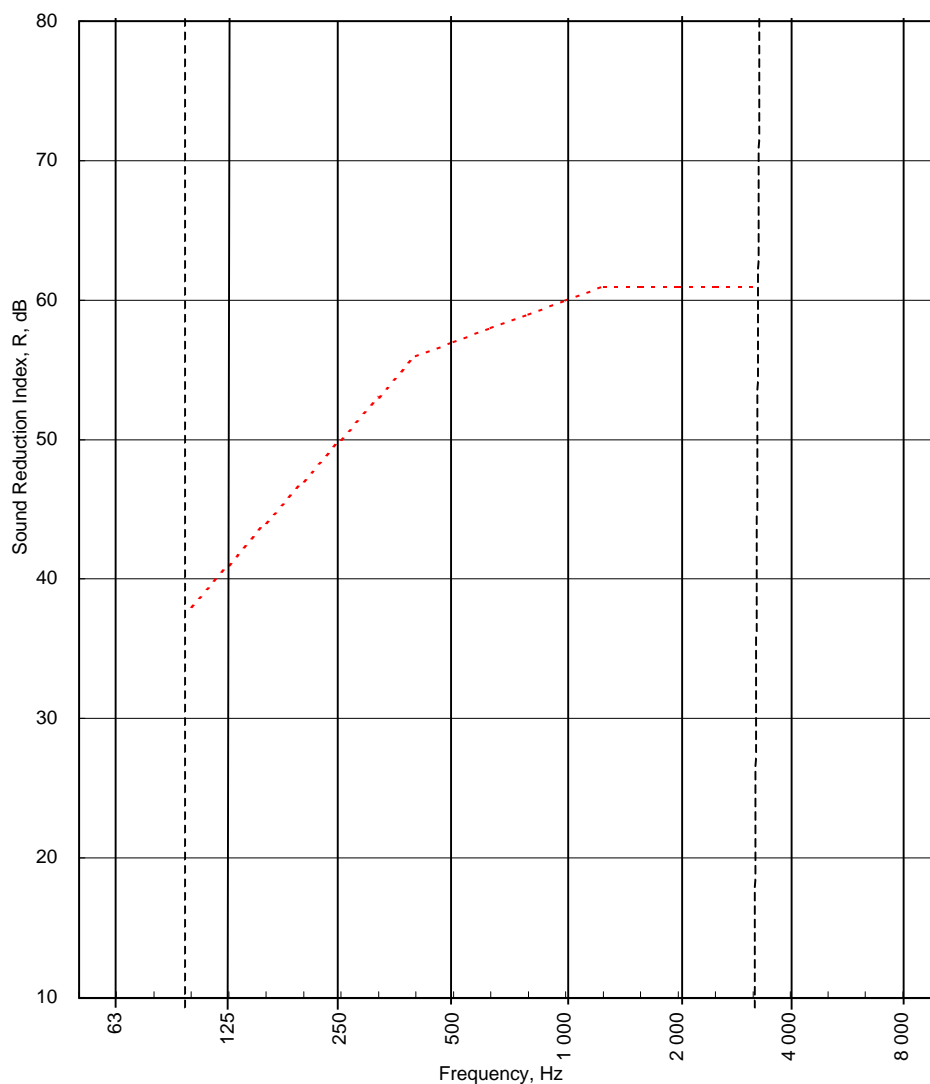
Addendum To BGATR 1514 Ctr CALCULATION

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							28.0	10.0	
125							35.0	6.0	
160							41.0	3.0	
200							44.0	3.0	
250							49.0	1.0	
315							50.0	3.0	
400							55.0	1.0	
500							61.0		
630							62.0		
800							67.0		
1 000							69.0		
1 250							70.0		
1 600							72.0		
2 000							72.0		
2 500							66.0		
3 150							58.0	3.0	
4 000									
5 000									
6 300									
8 000									
10 000									

<b>Single Figure Ratings</b> BS EN ISO 717-1: 1997	<b>Rw</b> dB <b>57</b>	<b>C</b> dB <b>-3</b>	<b>Ctr</b> dB <b>-11</b>	<b>Total U. Dev., dB</b> <b>30</b>
$Rw + Ctr = 46$				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

Test Code:
Test Date:

Freq. Hz	R dB
50	
63	
80	
100	28.0
125	35.0
160	41.0
200	44.0
250	49.0
315	50.0
400	55.0
500	61.0
630	62.0
800	67.0
1 000	69.0
1 250	70.0
1 600	72.0
2 000	72.0
2 500	66.0
3 150	58.0
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<sub>w</sub> (C;C<sub>tr</sub>) = 57 (-3;-11) dB**

Max dev. dB at Hz

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

C<sub>50-3150</sub> = dB

C<sub>50-5000</sub> = dB

C<sub>100-5000</sub> = dB

C<sub>tr,50-3150</sub> = dB

C<sub>tr,50-5000</sub> = dB

C<sub>tr,100-5000</sub> = dB