



**Title: Sound Absorption Test Results**

**Product: Grille with Backer 3/4" x 1-3/8"; rails spaced 1-1/2" o.c. - Solid with 1" Acoustical Backer**

Application: Ceiling

Testing Standard: ASTM C423-17 (Type E400 Mount)

Test Date: 9/3/2020

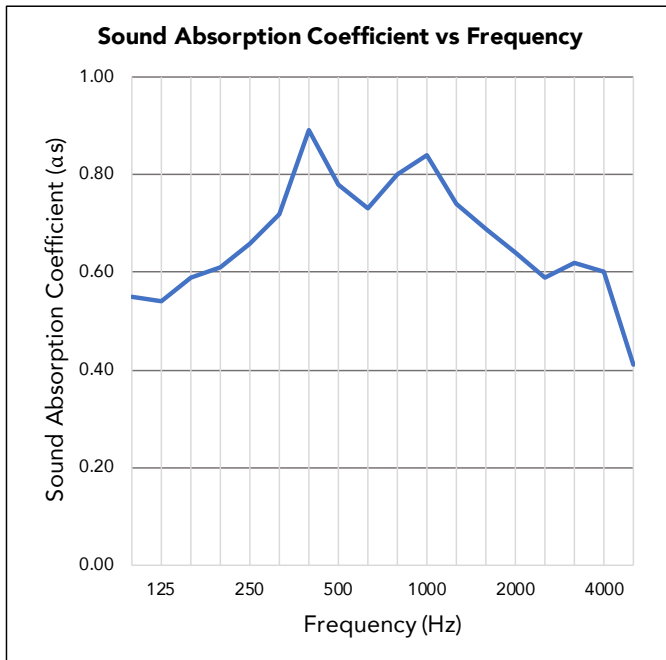
*Why this test:* This test evaluates a products efficiency of absorbing sound at multiple frequencies. The test simulates the product’s acoustical performance with a lay-in ceiling installation.

Test Result Summary: NRC - 0.75; SAA - 0.72

NRC	SAA
0.75	0.72

Frequency (Hz)	Absorption Coefficient
100	0.55
125	0.54
160	0.59
200	0.61
250	0.66
315	0.72
400	0.89
500	0.78
630	0.73
800	0.80
1000	0.84
1250	0.74
1600	0.69
2000	0.64
2500	0.59
3150	0.62
4000	0.60
5000	0.41



Test ID: OL20-0911

**ASI TEST RESULT DISCLAIMER**

ASI makes every effort to ensure the accuracy and reliability of the information provided. Laboratory testing is conducted by independent testing organizations. ASI does not guarantee that field tests or independent tests will not vary.

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# Sound absorption coefficient according to ASTM C423-17 (Type E400)

Measurement of sound absorption coefficient in a reverberation room

Client: ASI Date of test: 9/3/2020  
 Description: Grill Backered   
 3/4" x 1-3/8"; 1-1/2" o.c. (app. 49% open)

Object: 8' x 9' C423 Sample with one-inch absorption  
 Weight: 140.8 lbs. (9 pieces)  
 1-inch backer: 21.5 lbs.

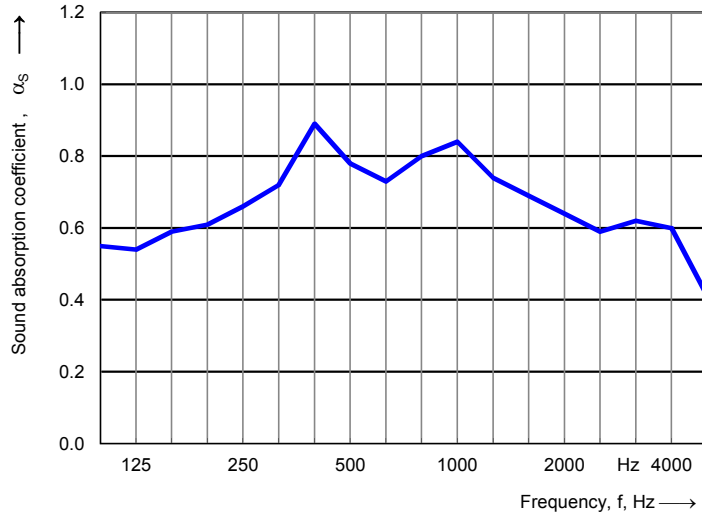
Empty reverberation room:	Reverberation room with object:
Relative humidity: 50.0 %	Relative humidity: 50.0 %
Temperature: 20.0 °C	Temperature: 20.0 °C
Barometric pressure: 755.0 mbar	Barometric pressure: 755.0 mbar

Surface area: 6.69 m<sup>2</sup>  
 Room volume: 234.4 m<sup>3</sup>



E400 test with Grille Backered (1-inch backing)

Frequency f [Hz]	$\alpha_s$ 1/3 octave
100	0.55
125	0.54
160	0.59
200	0.61
250	0.66
315	0.72
400	0.89
500	0.78
630	0.73
800	0.80
1000	0.84
1250	0.74
1600	0.69
2000	0.64
2500	0.59
3150	0.62
4000	0.60
5000	0.41



Sound Absorption Average SAA:	0.72
Noise Reduction Coefficient NRC:	0.75

Name of test institute: Orfield Labs  
 No. of test report: OL20-0911

Date: 9/14/2020

Signature: