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## REPORT

3933 US ROUTE 11 CORTLAND, NEW YORK 13045

Order No. 104486641

Date: October 30, 2020

REPORT NO. 104486641CRT-001

SOUND ABSORPTION TEST ON  
A SCREEN CURTAIN WITH ARTICLE CODE 37282-404

### INTRODUCTION

This report gives the results of a Sound Absorption test and the determination of the Noise Reduction Coefficient on a screen curtain. The test specimen was selected and supplied by the client and received at the laboratories on October 7, 2020. The sample appeared to be in a new, unused condition.

### AUTHORIZATION

Signed Intertek Quotation No. Qu-01108822-0

### TEST METHOD

The specimen was tested in accordance with the American Society for Testing and Materials designation ASTM C423-17, "Standard Test Method for Sound Absorption and Sound Absorption Coefficients by the Reverberation Room Method".

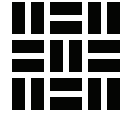
### GENERAL

This test method describes the measurement of sound absorption by analyzing the decay rate of sound in a reverberation room. The difference of the decay with and without the specimen in the room is utilized to determine the sound absorption of the specimen under test. Intertek Testing Services Acoustical Facilities utilizes a 16,640 cu. ft. (470 cubic meter) reverberation room.

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## **GENERAL** - Cont'd

The sound absorption coefficient is ideally defined as the fraction of the randomly incident sound power absorbed by the material. The greater the coefficient, the greater the sound absorption.

The Noise Reduction Coefficient (NRC) is a single number rating obtained by taking the arithmetic average of the absorption coefficients at 250, 500, 1000, and 2000 Hz rounded to the nearest multiple of 0.05.

The Sound Absorption Average (SAA) is a single number rating obtained by taking the arithmetic average of the one-third octave bands from 200 through 2500 Hz rounded to the nearest 0.01.

## **DESCRIPTION OF TEST SPECIMEN**

The test specimen consisted of a screen curtain with article code 37282-404. The sample was 108 inches wide by 96 inches long by a nominal 0.02 inches thick and weighed 0.08 lbs./ft<sup>2</sup>. The sample was hung 3 inches away from the wall surface.

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## RESULTS OF TEST

### SCREEN CURTAIN WITH ARTICLE CODE 37282-404

One Third Octave Band Center Frequency, Hz	Absorption Coefficients Sabins/m <sup>2</sup>	Repeatability, R	Reproducibility, r
80	0.00	0.14	0.14
100	0.00	0.15	0.27
125	<b>0.14</b>	0.11	0.22
160	0.20	0.11	0.23
200	0.04	0.09	0.17
250	<b>0.11</b>	0.07	0.15
315	0.24	0.09	0.22
400	0.41	0.14	0.16
500	<b>0.59</b>	0.09	0.14
630	0.68	0.06	0.14
800	0.70	0.07	0.14
1000	<b>0.69</b>	0.06	0.12
1250	0.76	0.05	0.13
1600	0.72	0.05	0.14
2000	<b>0.65</b>	0.05	0.13
2500	0.56	0.06	0.14
3150	0.59	0.08	0.15
4000	<b>0.60</b>	0.11	0.16
5000	0.56	0.15	0.21
<u>Sound Absorption Average (SAA)</u>	<b>0.51</b>	0.08	0.03

### Absorption Coefficients – Sabins/ft.<sup>2</sup> One-Third Octave Band Center Frequency, Hz

<u>IDENTIFICATION</u>	<u>125</u>	<u>250</u>	<u>500</u>	<u>1000</u>	<u>2000</u>	<u>4000</u>	<u>NRC</u>
SCREEN CURTAIN	0.14	0.11	0.59	0.69	0.65	0.60	0.50

**MOUNTING:** Type “G-75” per ASTM Designation E795-16, “Standard Practices for Mounting Test Specimens During Sound Absorption Tests”.

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## REMARKS

1. Aging Period: None
2. Ambient Temperature: 72°F
3. Relative Humidity: 41%

## CONCLUSION

The test method employed for this test has no pass-fail criteria, therefore, the evaluation of the test results is left to the discretion of the client.

Date of Test: October 20, 2020

Report Approved by:

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