

STC TESTING  
FOR  
SUPERIOR PRODUCTS  
ON  
EXTERIOR AND INTERIOR WALLS  
BOTH COATED ON EXTERIOR SIDE  
VTEC #100-2251-2  
TESTED: NOVEMBER 22, 2005

December 9, 2005

**Client:** Superior Products  
10835 W. 78<sup>th</sup> Street  
Shawnee, KS 66214

**Attn:** J.E. Pritchett

**Subject:** Measure sound transmission loss per ASTM E90,  
"Standard Method for Laboratory Measurement of  
Airborne Sound Transmission Loss of Building  
Partitions."

Determine sound transmission class per ASTM E413,  
"Standard Classification for Determination of Sound  
Transmission Class."

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## **I. INTRODUCTION**

The sound transmission loss of a partition in a specified frequency band is the ratio, expressed on the decibel scale, of the airborne sound power incident on the partition to the sound power transmitted by the partition and radiated on the other side. The ratio of two like quantities proportional to power of energy is expressed on the decibel (dB) scale by multiplying its common logarithm by ten.

## **II. TEST METHOD**

The measurements were made in accordance with ASTM E90, "Standard Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions." The sound transmission class, STC, was determined in accordance with ASTM E413, "Standard Classification for Determination of Sound Transmission Class."

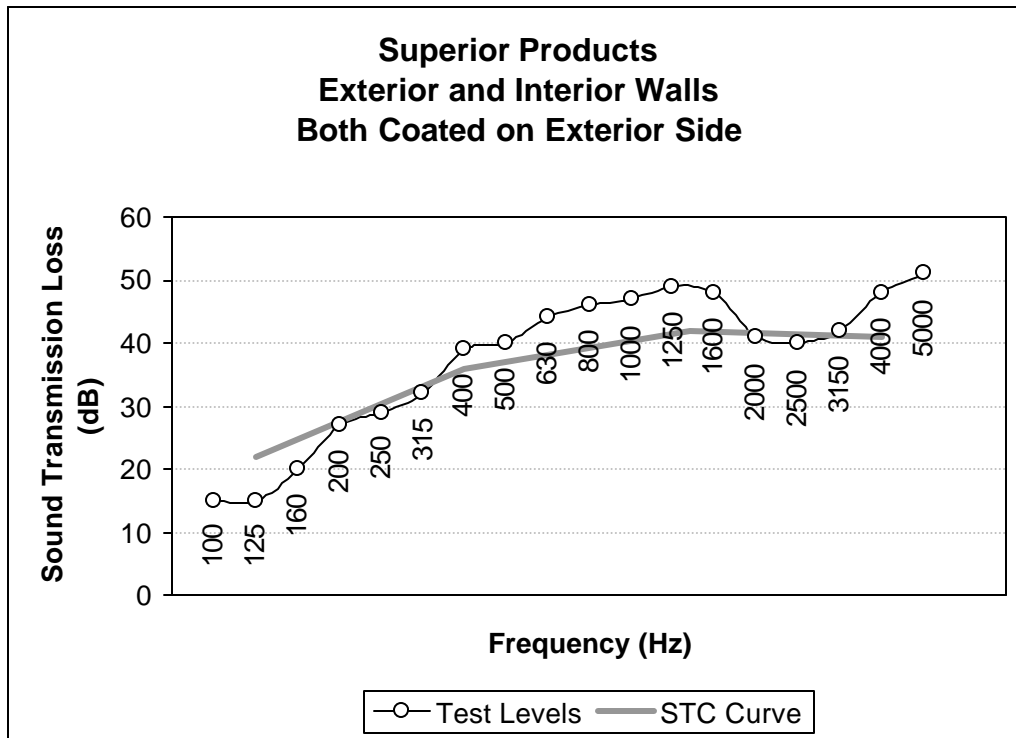
## **III. TEST SPECIMEN**

The test specimen was a sheetrock and steel stud wall 8' by 8' by 5-7/8" thick, consisting of 3-1/2" thick "Supertherm" coated steel studs, with 5/8" thick sheet rock on the exterior side. The sheetrock on both sides of the wall were coated with Supertherm. The wall was installed for testing in an 8' by 8' test opening between the source room and the receiving room. After the walls were installed, the crack around the perimeter of the wall and the crack between the sheet rock panels were sealed with "Duxseal". The wall was submitted for testing by VTEC Laboratories Inc., and was identified as "Test Wall no. 2, Exterior and Interior Walls Coated on exterior side". The weight of the specimen was 301 pounds. The test area was 64 square feet.

## IV. RESULTS

Frequency (Hz)	TL	Deficiencies	Frequency (Hz)	TL	Deficiencies
100	15		800	46	0
125	15	-8	1000	47	0
160	20	-6	1250	49	0
200	27	-2	1600	48	0
250	29	-3	2000	41	-2
315	32	-3	2500	40	-3
400	39	0	3150	42	-1
500	40	0	4000	48	0
630	44	0	5000	51	

Sound Transmissin Class, STC: 39



Neil Schultz  
Executive Director

Amirudin Rahim  
Technical Director