

**SOUND ABSORPTION TEST
NGC # 8562**

Assignment G 079

May 2, 1988

Tested For : Icynene Inc. Mississauga, Ontario Canada

Product Tested : The sample tested was identified as GOLDSEAL polyicynene micro-cellular plastic foam. The sample weighed .52 pounds per cubic foot.

Test Procedure : The sample was tested in accordance with the American Society for Testing and Materials (ASTM) Test Method C 423-84.

Test Mounting : The sample was tested using a modified Type A Mounting as specified in ASTM E 795-83 standard. Since the material is primarily intended for insulating wall structures, it was decided that a sample simulating a wall section would be laid directly on the test chamber floor (Type A mounting). Two wood frames measuring 4 foot by 9 foot were constructed of nominal 2 inch by 4 inch wood studwork. The stud spacing in the 4 foot direction was 16 inches o.c. A single layer of 5/8 inch thick wallboard was attached to one side of each of these frames using 1 inch Type S screws spaced 12 inches o.c. The GOLDSEAL polyicynene micro-cellular plastic foam was then sprayed into the framework and trimmed to the 3 1/2 inch thickness of the studs. These insulated frames were then laid on the test chamber floor (wallboard face down) and butted against each other creating the required 8 foot by 9 foot test sample.

**NGC REPORT# 8562
Page 1 of 3**

IF COPIED, THIS REPORT SHOULD BE COPIED IN ITS ENTIRETY.
EXCERPTS FROM THIS REPORT SHOULD NOT BE PRINTED OR DISTRIBUTED.

ACOUSTICAL LABORATORIES
REPORT



The laboratory is accredited by NVLAP of the U.S. Department of Commerce as having the competence to perform specified tests in accordance with prescribed test methods and accreditation criteria.

Test Results : **The Absorption Coefficients measured for this sample at the Octave Band Test Frequencies are as follows :**

<u>FREQUENCY, in Hz</u>					
<u>125</u>	<u>250</u>	<u>500</u>	<u>1000</u>	<u>2000</u>	<u>4000</u>
.11	.43	.89	.72	.71	.67

This translates to a NOISE REDUCTION COEFFICIENT (NRC) of .70 . The FOUR-FREQUENCY AVERAGE was .688 . The absorption curve and the remaining Absorption Coefficients measured at the 1/3 Octave Frequencies are listed on Page 3 of this report.

Submitted by *A. E. Heuer* 5/2/88

Andrew E. Heuer
Acoustical Project Engineer

NGC REPORT# 8562
Page 2 of 3

IF COPIED, THIS REPORT SHOULD BE COPIED IN ITS ENTIRETY.
EXCERPTS FROM THIS REPORT SHOULD NOT BE PRINTED OR DISTRIBUTED.

The laboratory is accredited by NVLAP of the U.S. Department of Commerce as having the competence to perform specified tests in accordance with prescribed test methods and accreditation criteria.

TEST # NGC 8562 NRC-0.7
DATE 5/2/88 PROJECT # G 079

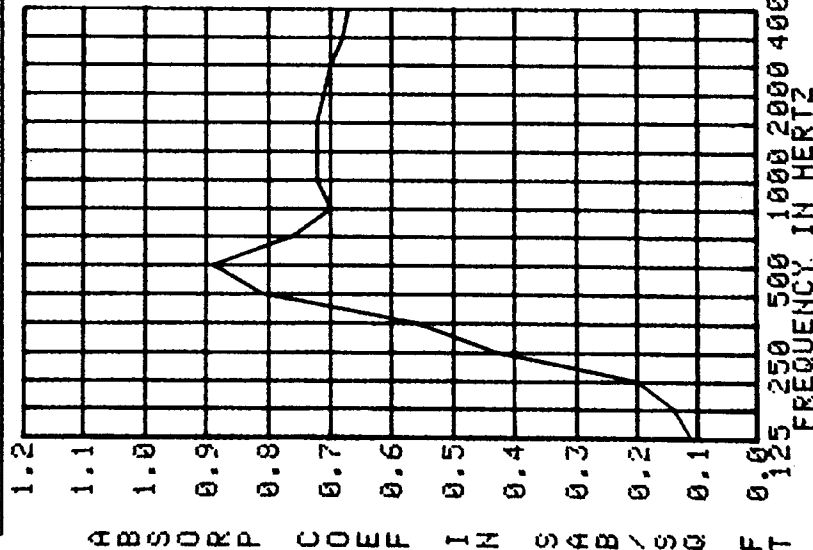
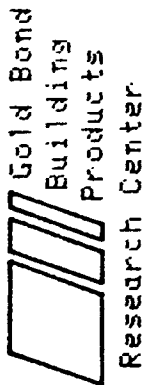
MOUNTING- TYPE A (ASTM) SEE BELOW
PRODUCT- ICYNENE GOLDSEAL FOAM
 SPRAYED INTO WOOD FRAME
WEIGHT-
REMARKS- FOAM SPRAYED INTO 8X9'
 WOOD FRAME STUDS 16" O.C

-- FREQ. HZ. -- ABSORP. COEF. -- % UNC. --

125	0.11	4.3
160	0.14	3.1
200	0.20	3.0
250	0.43	2.6
315	0.56	2.1
400	0.81	1.9
500	0.89	1.7
630	0.76	1.4
800	0.70	1.2
1000	0.72	1.2
1250	0.72	0.9
1600	0.72	1.0
2000	0.71	1.0
2500	0.70	1.0
3150	0.68	0.9
4000	0.67	0.9

FOUR FREQUENCY AVERAGE- 0.688

WITNESSED BY *C. L. Hawk* 5/2/88



1650 Military Road, Buffalo, NY 14217 Tel. 716-873-9750 TWX 710-522-1169