PROJECT: 267.811 February 18, 1981

REPORT OF SOUND ABSORPTION TEST 267.811-1

The material tested is 'Monoglas' a fine glass fibre spray on material produced by Douglas Eyrl Associates Ltd. The test was conducted at 1200 W. 73rd Ave., Vancouver, B.C. on February 6, 1981, for Douglas Eyrl Associates Ltd.

The same method used to determine the absorption of the material is described in ASTM C423-77.

Description of Test Specimen

The material was sprayed onto two 4' x 9' sheets of 1/2" drywall and allowed to dry for 5 days. Ten depth measurements averaged 35 mm (1.4", ± 0.2" to 95% confidence). The sample tested was 6.69 sq. m (8' x 9').

Result of Measurement

The measured sound absorption coefficients are as follows:

Freq. (Hz)	125	250	500	1000	2000	4000
Coefficient (α)	0.267	0.363	0.816	1.008	1.074	0.916
95% confidence	0.059	0.052	0.067	0.127	0.063	0.079

Noise Reduction Coefficient: NRC = 0.8 - 0.85

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Description of Test

The test room was a concrete room with dimensions 8.8 m x 5.8 m x 3.25 m, and a volume of 167 cu. m. The test specimen was 2.44 meters by 2.74 meters (8' x 9'), which is the recommended size for ASTM C423-77.

Twelve sets of reverberation measurements were made in the empty room and the average absorption coeffficient was 0.05.

Because of the long room length, 2 sets of measurements were made of the sample, one with the sample on the floor, and one with the sample on the end and side walls. Twelve sets of reverberation decays were made for each set. All decays were linear over the 30 dB analysis range. The floor average NRC with the test specimen on the floor was 0.85±0.05, and the average with the specimens against the walls was 0.79±0.07, with 95% confidence. The average of the two tests was 0.82±0.04 and the NRC is reported as 0.80 to 0.85 with 95% confidence. The most probable value is 0.80.

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