



Harold R. Mull, Bell and Associates, Inc. / acoustical engineering & noise control 181 Main Street Norwalk CT 06851 · 203-847-4529

SINCE 1959

October 23, 1981

Canam Hambro
4878 N.W. 167th Street
Miami, Florida 33014

Gentlemen:

I have reviewed the chart you submitted to us showing the % reduction of apparent loudness for your floor system over that of the 45 STC minimum requirement. The percent reduction achieved through an increase of 12 STC (45 to 57) is substantial and does indeed represent a 220% reduction in loudness in the receiving space.

I have also reviewed the test reports showing an STC of 57. They appear to have been conducted according to accepted procedures and we can assume the data to be fully reliable. It is important to note that the field tests confirmed the laboratory measurements of the STC class so that there is no difference in efficiency between a laboratory installation and a field installation.

The canam hambro system will provide the required reduction for luxury apartments and office buildings where sound isolation is an important factor.

Yours very truly,

A handwritten signature in cursive script that reads 'Harold R. Mull'.

Harold R. Mull
President

HAROLD R. MULL

He has authored many papers and contributed to several educational books on acoustics. He is past president of the National Council of Acoustical Consultants and currently vice chairman of the E-33 (Environmental Acoustics) committee of the American Society for Testing Materials. He is also a Fellow of the Acoustical Society of America, member of the Institute of Noise Control Engineering, and is a senior member of the Institute of Electrical and Electronics Engineering having served as chairman of the Cleveland section of IEEE.

ACOUSTICAL PROPERTIES

SIEBEIN ASSOCIATES, INC.

Consultants in Architectural Acoustics

625 NW 60th Street, Suite C Gainesville, Florida 32607
Telephone: (352)-331-5111 Facsimile: (352)-331-0009

September 2, 2005

Hambro Structural Systems
450 East Hillsboro Blvd.
Deerfield Beach, FL 33441

Gentlemen:

Siebein Associates Inc. has conducted a review of various IIC and STC laboratory test reports for floor / ceiling assemblies utilizing the Hambro floor system. A summary of our findings for bare floor Hambro assemblies with either one or two layers of gypsum board for the suspended ceiling are described below.


A Hambro concrete floor with no floor finish and a suspended ceiling consisting of one to two layers of gypsum board will have an IIC rating from 27 - 36 depending on the thickness of the slab, the number of layers of gypsum board for the suspended system, and installation details. This is based on reports from the National Research Council Canada, report numbers 029-NV and 032-NV, both dated March 5, 1986. The IIC rating is used to compare the effectiveness of floor / ceiling assemblies in reducing impact generated sounds such as footsteps and furniture moving in the rooms below. The higher the IIC rating, the greater the reduction of impact sounds between units.

The test data indicates that a Hambro concrete floor system with no floor finish and a suspended ceiling consisting on one or two layers of gypsum board will have an STC rating from 53-60 depending on the thickness of the slab, the number of layers of gypsum board for the suspended system, and installation details. This is based on reports from the National Research Council Canada, report numbers 029-NV and 032-NV, both dated March 5, 1986. The STC rating is used to compare the effectiveness of floor / ceiling assemblies in reducing airborne sounds to rooms below. The higher the STC rating, the greater the reduction of airborne sounds between units.

Please do not hesitate to call with any questions in this regard.

Sincerely,

SIEBEIN ASSOCIATES, INC.


Gary W. Siebein, FASA, AIA
Principal Consultant

Members of the Acoustical Society of America, the Institute of Noise Control Engineers and
the National Council of Acoustical Consultants