

ACOUSTICS2008/82 **Acoustic behavior of triple glazings**

Marc Rehfeld and David Fournier
Saint Gobain Glass, CRDC, B.P. 40103, 60777 Thourotte Cedex, France

Making of triple glazings is the only way to still improve thermal performances of Insulating Glass Units. Possible ways with double glazings are already in use : increase the space between glasses, use low emissivity coatings and special gas with lower thermal conductivity as argon or krypton. Specific acoustic weak point of double glazings is the resonance between the two panes which works as a mass spring mass system, and coupling of eigenmodes of panes through the air (gas) cavity. These phenomena are of course still more important with triple glazings, as there are two resonances. The paper will give all comparative data concerning thermal and acoustic performances, and describe a way to achieve the same single number values of sound transmission loss with triple glazing that with double glazing by adding absorption in the gas cavities.