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Lightweight system Technostar specified in the CCTV tower
Beijing

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The role and possibilities of lightweight mineral wool is known for quite some years, acting as the optimum spring in a mass spring mass system one can reach high acoustic values. Compared to the massive constructions (e.g. concrete) the use of a mass spring mass construction has also other advantages (e.g. logistic, dimension of foundation and labour costs). Saint-Gobain Isover developed a wall system called Technostar, originally defined for cinema walls. In this construction an optimal mass spring mass construction is created.

The theory of mass spring mass systems will shortly come up. All elements of the system are described. The acoustical performance of the Technostar construction is calculated with acoustic software (Stiff) and compared with laboratory measurements; the influence of different parameters on the measured acoustical performance will be shown.

The practical use of the Technostar wall will be shown on the basis of the project CCTV tower in Beijing. For this project the acoustic requirements, the translation in terms of the wall construction with the specific details will be shown. The system will be build in March 2008.