

Energy audit of historical BHP Hall in Gdansk

Summary

The BHP Hall in Gdansk Shipyard is a great example of a brick industrial building comes from the XIX century. It's also a special place for the Solidarity movement from the 80s. The Hall is entered in the Monuments Register of Pomeranian Voivodeship and do not have their original function any more. In the years 2006-2010 the building was completely re-valued and rebuilt so that it can serve as a Solidarity Museum and conference hall.

Thermo modernization of BHP Hall has also been carried out, and it was the reason that building has been selected as one of the case studies of Co2olBricks project in Poland, coordinated by the European Foundation for Monuments Protection. The study was carried out by an external contractor, Energy Conservation Foundation in Gdansk, which conducted the following range of analysis and research:

- Determination of thermal needs of the building for the current state
- Evaluation of thermal insulation of building partitions
- Evaluation of systems and installations
- Identify actions that can be taken to improve current state

During the study contractor taken into account two main criteria: WT2008 requirements (technical conditions for buildings in Poland) for public buildings and energy auditing criteria for buildings undergoing thermal modernization.

The whole study summary was included in a two-part elaboration document, submitted in November 2012. In the first place, employees of the European Foundation for Monuments Protection were familiar with the elaboration, and then, on 15 November 2012, it was officially handed over to the representatives of "The Solidarity", which manages this building.

Conclusions from the study indicated that most of the thermo modernization was carried out properly. Insulation of roofs, floors, windows and doors represent a good level of performance. Research pointed that contractor for modernization not exhausted all opportunities to improve energy efficiency. An analysis, however, suggested to some improvements, such like:

- Further, the double insulation of external walls using EUROTHANE G discs (8 cm)

- Increasing the thickness of the mineral wool insulation under the attic of the building B side
- Execution of the optional coverage of roof by polyurethane foam with a thickness of 3-5 cm.

The examination of Case Study showed that even a well-insulated building, with using of modern methods, still can be more energy efficient. This is the main conclusion that should be promoted and implemented by other thermo modernization projects.

More about BHP Hall – www.salabhp.pl

Details are available in the complete survey (download on www.co2olbricks.eu) which is in Polish.

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