



Abstract

One of the basic building structures is the window reveal which was changed during the centuries. Due to this fact exists many types of window reveal. This work is focused on the critical conditions based on the hygrothermal processes of the surface of the window reveal. The long term monitoring of the building structures (in situ) observe mainly critical conditions to grow up molds and condensation of the water vapor. To extend and confirm observed long terms results few short-term measuring were done. The last part of the work direct at the modeling of the window reveals structure by 2D software. The different structures of the window revels were modeled with the variable of interior and exterior conditions. The results of the simulation are in accordance with the experimental results and approve, that window surface reveal of the simple window are more often in the critical conditions to grow up molds and condensation of the water vapor in comparison with the window reveal of a double window.