

Research project MA 39, TU Graz:

**“Calculation of energy demand for heating/humidification and cooling/dehumidification regardless of location in supplementation of ÖNORM H 5057”**

Aim of the research project:

The research project consists of an air moisture model, that is – together with a temperature model - already part of ÖNORM B 8110-5:2010 and a study of the TU Graz to determine the sum of enthalpy of air treatment activities in ventilation and air conditioning systems.

Abstract:

ÖNORM H 5057:2010 includes a calculation of the energy demand of ventilation and air conditioning systems in residential and non-residential buildings based on specific energy performance figures. Such figures exist for the case of heating for the city of Klagenfurt and for the case of cooling for the city of Vienna. For all other locations the calculated energy performance figures of ventilation and air conditioning systems have to be “destandardised”. This path is similar to the German approach but seems to be very pragmatic regarding the fact that no climate data for the location are available. Based on the fundamental study of the TU Graz which develops a temperature model and an air moisture model out of the specific energy performance figures of Klagenfurt and Vienna it is now possible to calculate these data for any location all over Austria.

Comment: The designed air moisture model is already installed in ÖNORM B 8110-5. The transformation of all the other fundamental works out of the study of TU Graz into a standard has already been prepared within ÖNORM H 5057:2010. The complete transformation can be expected for 2010.