

DuPont™ **Energain®**

Environmentally sustainability in buildings

DuPont™ Energain® technology improves room climate and energy efficiency of private villa in Prague



DuPont™ **Energain®**

In today's climate, energy saving is the key factor and a crucial condition for sustainable development, both environmental and economical. The innovative DuPont™ Energain® technology not only contributes to energy consumption and CO₂ reduction of buildings but also helps to improve the room climate by up to 7°C. A private villa at Makotrasy, in the suburbs of Prague, Czech Republic, is taking benefit of this new passive room climate management solution from DuPont.

DuPont™ Energain® thermal mass panels, 1.0m x 1.2m x 5.26 mm, are light and easy to install as known from gypsum board. They can be cut to any size and then nailed, stapled or screwed onto a ceiling or wall. The panels incorporate an innovative phase change material (PCM) with a melting point of 22 °C. around this temperature the paraffin starts melting and absorbing a large amount of thermal energy during its melting phase. If the temperature drops, the paraffin starts solidifying releasing stored heat back into the room.

Martin Rychlý, sales manager of Kerilit, the company which has supplied and installed DuPont™ Energain® panels for this private villa, explains: "This house has been designed as an energy-efficient family house, which meets the requirements of a "passive" building. Conceptually, the house is an up-to-date functionalist building heated by a pump using heat recovered from waste air and complemented with photovoltaic cells. Despite this, the rooms located directly under the roof, may get overheated in summer months. Therefore a total of 80 square metres of DuPont™ Energain® panels have been installed on the ceilings of these rooms." The panels help to improve the inertia through their high heat storage capacity, resulting in lower temperature fluctuations and higher room comfort.

"Manipulation and installation of the DuPont™ Energain® panels were quick and easy, a perfect solution for this project", said Mr. Rychlý.

DuPont Building Innovations
DuPont de Nemours (Luxembourg) S.à r.l.
Rue Général Patton
L-2984 Luxembourg
E-mail: energain@lux.dupont.com
Website: <http://www.energain.dupont.com>

Recommendations as to methods, use of materials and construction details are based on the experience and current knowledge of DuPont and are given in good faith as a general guide to designers, contractors and manufacturers. This information is not intended to substitute for any testings you may need to conduct to determine for yourself the suitability of our products for your particular purposes. This information may be subject to revision as new knowledge and experience becomes available since we cannot anticipate all variations in actual end-use conditions. DuPont makes no warranties and assumes no liability in connection with any use of this information. Nothing in this publication is to be considered as a licence to operate under a recommendation to infringe any patent right.