

Dow Plant, Stade - Goods Receipt Warehouse

Stade, Germany



TRADE

Warehouse

The general contractor GOLDBECK has constructed a sustainable commercial property in Stade for Dow Deutschland Anlagengesellschaft mbH. Right from the start, Dow placed special emphasis on high-efficiency energy usage in heating and air conditioning. The aim of this building project is to enable energy-saving, cost-saving and future-proof operation of the building while ensuring optimum comfort. An energy-efficient architecture and the consistent use of renewable energies protects natural resources and minimises the emission of harmful greenhouse gases. In all of its installations and buildings, Dow ensures adherence to its sustainability goals, which include the environmentally sound use of resources and energy. Heat pumps in this building project enable the conversion of geothermal energy collected by geothermal probes and energy piles (hybrid source) for use in heating and cooling the building. The energy is dissipated via GOLDBECK energy floors. In the summer, the heat is routed from the rooms into the energy piles, keeping the building pleasantly tempered. At the same time this also re-energises the piles. The building draws around 80% of its energy demand from the environment.



Project data

Property type:	Warehouse with office annex
Year of construction:	2010
Gross floor area (GFA):	4,200 m ²
System:	Heat pump
Completion:	2010
Use:	Heating, cooling
Main components:	Geothermal heat pumps with a total output of 157 kW: 86 kW, 44 kW and 27 kW, heat source: energy piles and geothermal probes
Special features:	Use of a hybrid source for heating, passive cooling via energy piles, remote control
Energy savings per year:	246,000 kWh p.a
Reduction in CO ₂ emissions per year:	38,000 kg CO ₂ p. a
Regenerative portion of energy demand:	80 %