

» **Armaflex in innovative mine water project in Heerlen (the Netherlands)**



Yesterday's mine shafts used for tomorrow's energy

The coal mines lay idle for over 30 years, now the mine shafts of a former pit in the Dutch town of Heerlen are being used to produce energy again. In the first European geothermal energy project on this scale, a new development with shops, a supermarket and large office building are being heated, and in summer cooled, using mine water.

Water is pumped into the mine shafts, which are up to 700 m deep, and heated to approximately 30 °C. In the power station developed by Weller Energie BV the water is then heated further by heat pumps. However, the mine water is not used directly for heating: after the heat has been transferred it flows back into the earth where it is reheated. The water, which has been heated by heat exchange, then enters the buildings via a pump system. In summer, the water from 250 m-deep tunnels is used to cool the buildings.

Because the mineralized mine water

is highly corrosive, pipes made of polypropylene and heat exchangers made of titan were used. The technical systems were installed by Imtech Building Services (Capelle aan den IJssel). Imtech stipulated Armaflex for the insulation of cooling water pipes, tanks and cold installations. Some 1,300 m of Armaflex 13 mm tubes and around 400 m² of Armaflex

sheet material in insulation thicknesses of 13 and 19 mm were installed by the insulation company SGB Cleton (Elsloo). The closed-cell insulation material reliably protects the installations against condensa-

tion and unnecessary energy losses.

SGB Cleton has been using Armacell products for many years and was one of the first insulation companies in the Netherlands to be certified.



With Armaflex cold installations are reliably protected against energy losses