

References SANCO

Plumbing and heating installation for residential dwellings

The builders stipulated that the sanitary and heating systems for the residential dwellings should be very efficient and long lasting. The plumbing and heating engineers, therefore, opted for SANCO® branded copper tubes from Wieland-Werke AG for the entire installation.

Sanitary installation

The various technical parameters of the Drinking Water Directive determine the choice of tube material. According to hygienic standards only temperature resistant and standardized materials can be used. Furthermore, the inner tube surface should not encourage growth of micro-organisms and the tubes should be suitable to be disinfected under heat. Consequently, the only choice for planner and installer was the Wieland SANCO® tube, as copper has antibacterial properties and is particularly suitable for the generally used disinfection methods.

A separate set of pipes were laid to the toilets as it was planned to use rain water at a later stage. The entire installation was soft soldered with soldering fittings. As the system was installed during the cold season and due to danger of frost the pressure test was carried out with pneumatic pressure according to DIN 1988. The installation was flushed with filtrated water as required prior to commissioning.

The engineering company used a total of approx. 220 metres tubes with a diameter of 12 to 22 mm and a total of 18 sanitary units and three external taps were connected. A 300 litre tank with two heat exchangers was installed for the heating of drinking water which could be converted to solar panel heating at a later date.

Heating

As the builder wanted to use renewable resources for the heating of the house, the 18 kilowatt low-temperature oil-fired boiler was supplemented by a wood-fired boiler with a 1,000 litre buffer storage tank which supplies the separate heating circuits for low-temperature radiators and underfloor heating.

The architect paid special attention to the construction of the house to maximise the exposure of daylight in the rooms, i.e. he installed large windows and opted for underfloor heating instead of radiators. A high level of radiant heat provides a particularly agreeable room climate. Cuprotherm® underfloor heating of various designs was installed in a total area of 160 m².



It was of particular importance to builder, planner and installer to use a system whose reliability has been successfully proven in practice. Technical characteristics such as permanent diffusion tightness, high utilization ratio thanks to good thermal conductivity as well as unsurpassed technical life expectancy were important criteria in this decision. As all components such as insulating boards, fastenings, distributors and control

systems are from a single source and available as a complete system they are, of course tuned to each other.

The Wieland Advisory Service gave their support during planning and completion of the project.