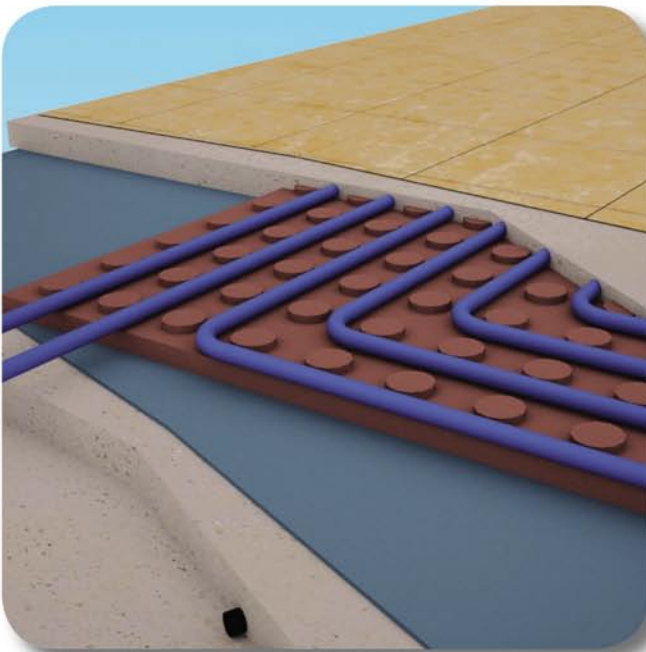


## Water treatment in RADIANT PANEL HEATING SYSTEMS



### Introduction

Modern floor systems are carried out using flexible pipes positioned in the screed. Due to their fixed structure which generally makes them not accessible, it is essential to preserve these pipes against problems created by water which may restrict circulation or even cause obstructions.

### Types of systems

The market offers a wide range of heat distribution pipes; the most commonly used transmission method is represented by reticulated polyethylene or polybutylene tubes. Non-metallic tubes are usually provided with a barrier limiting oxygen propagation in the pipes which is not however always effective.

### Problems

One of the problems affecting floor heating systems is obstruction.

In fact, independently of the type of system, water is in contact with metal and, regardless its oxygen content, a certain degree of corrosion is unavoidable. The presence of some cold points in the system is very often ascribable to an accumulation of metal oxides. On the basis of our personal experience, organic substances often worsen the problem consequently becoming the main cause of the obstruction. The ideal temperature for the growth and proliferation of microbiological organisms is 40°C. These organisms - mainly represented by fungi in the form of a viscous sludgy mass - are often resistant to low chlorine concentrations. It was observed that these proliferations mainly occur in old systems.

### Interventions

When the floor heating system is obstructed, the best solution is to remove the obstruction. To do so, disconnect the pipe involved from the manifold and apply a pressure generally not exceeding 3 Bars, which is the limit tolerated by non-metallic pipes. Sometimes this limit proves insufficient to remove the obstruction. If pressure application has not produced any positive effects on the systems obstructed by oxide deposits and sludge, ANTINEX disaggregating agent for oxides, grease and sludge shall be used. This operation will prove more effective if the special pump DISIFLUX is used.

### Prevention

Compatibility tests have shown that FACOT products are compatible with all most commonly used types of plastic materials for the pipe manufacturing. We therefore advise that you treat floor systems in the same way as "traditional" ones. The operation consists in thoroughly washing the system at a high water recirculation flow rate; protect the system against corrosion (oxide deposits) treating it with FILMAX or, where protection against frost is required, with FILMAX & ANTIGELO. Moreover, if FILMAX is not present, a suitable dose of PREVENTORE ANTIALGA should be added in the system to prevent microbiological growth.