

[602] UNDERFLOOR HEATING SYSTEM

Underfloor heating	LOW TEMPERATURE HOT WATER UNDERFLOOR HEATING SYSTEM	LOW TEMPERATURE WATER REVERSIBLE UNDERFLOOR HEATING	RADIANT UNDERFLOOR HEATING SYSTEM
DESCRIPTION	The underfloor heating system is based on tubes, in which water circulates, distributed over the surface of the room and cast in a screed installed on a thermal insulation.	The underfloor heating system is based on tubes, in which water circulates, distributed over the surface of the room and cast in a screed installed on a thermal insulation. Water flowing through the tubes may be of a temperature that is higher (heating) or lower (cooling) than the ambient temperature.	The underfloor heating system is based on electrical cables conditioned in preformed wefts incorporated into a screed installed on a thermal insulation.
COMMISSIONING	The first heating begins with a fluid at a temperature between 20°C and 25°C which must be maintained for at least three days. Then the maximum operating temperature must be reached and maintained for at least four additional days. The heating and preheating processes must be documented.	The first heating begins with a fluid at a temperature between 20°C and 25°C which must be maintained for at least three days. Then the maximum operating temperature must be reached and maintained for at least four additional days. The heating and preheating processes must be documented.	The first warm-up of the radiant underfloor heating system must be done by the electric heating installer. This operation can only begin 3 weeks after the completion of the overlaying work, and before installation of the floor coverings. For example, the first day of heating cannot exceed 2 hours, then the heating periods can be extended by up to one hour per day up to the limits imposed by the operation of the regulation. The information about this first warm-up must be sent to the floor covering laying contractor or, failing this, to the project owner or the general contractor.
RULES TO BE COMPLIED WITH	The owner of the heating system must have started up and turned off the underfloor heating in compliance with the installation procedures described in Article 6.2.4 of NF P 62-203 (DTU 53.2) 48 hours before applying the primer and the floor preparation compound or the floor covering. For radiant underfloor heating systems, furniture and carpets hinder heat and involve the use of greater power. In fact, it is advisable to use furniture with legs rather than resting directly on the floor; a gap between the furniture and the floor of less than 3 cm affects the emission of heat. And can cause discolouration in PVC floor coverings.		
FLOOR TEMPERATURE	In residential, office or public buildings, underfloor heating systems must be designed and installed in such a way that the surface temperature of the finished floors cannot exceed 28°C at any point (Article 35.2 of the decree of 23 June 1978)		
THERMAL RESISTANCE OF THE FLOOR COVERING	< 0.15 m ² .K/Watt	< 0.09 m ² .K/Watt	< 0.15 m ² .K/Watt
RETURN TO SERVICE AFTER FLOOR COVERING WORK	The heating can be progressively turned back on only after a minimum period of 2 days after the end of the work; respect the recommendations of the underfloor heating system supplier		

INSTALLATION METHOD AUTHORISED FOR BUILDINGS			
Glue-down installation	YES	YES (contact the adhesive manufacturer)	YES
Adhesive installation (Saga ² , 3F, 2F)	YES	NO	YES
Semi-loose-lay installation (Transit-TEX)	YES	YES (without Technical Report)	YES (gluedown)
Loose-laying (LVT Clic, GTI, Attraction®)	YES	YES (without Technical Report)	NO

INSTALLATION METHOD ALLOWED FOR SPORTS HALLS			
Glue-down installation	YES	YES	YES
Taraflex Comfort	NO	NO	NO
Installation on Sporisol	YES (except TX Comfort and installation on subfloor construction)	NO	NO
Installation on subfloor construction	NO	NO	NO