

GERFLOR FLOORINGS & UNDERFLOOR HEATING

Gerflor floorcoverings including Taraflex Sport M Plus and Multi-Use 3.0 & 5.0 can be installed to subfloors containing underfloor heating systems, however it is important that consideration is given to the following points.

BS 8203 2001 Code of Practice for the Installation of Resilient Floor Coverings states in section 3.9 that underfloor heating systems are designed to run at temperatures up to 27 degrees C, and that resilient floor coverings covered by the standard may be used up to this maximum. It also warns that floor coverings with a foam backing will reduce the response of underfloor heating because of their thermal insulation properties. The Contract Flooring Association and the UK Resilient Floorcovering Manufacturers Association have also produced a joint statement on UFH a copy of which is attached to this sheet. Point elastic sports floors such as Taraflex Sport M Plus provide their performance by using dense closed cell foam and therefore have a high thermal resistance. (0,11 degrees/K per sqm or 1.1 Tog in the case of Sport M Plus). Area elastic subfloor systems complying with BS 7044 Part 4 are constructed using timber which is highly insulative and liable to shrinkage if heated.

In order to comply with BS8203 and therefore avoid invalidating the product warranty, any proposed heating system must be able to achieve the required room temperature (the Sport England guidelines suggest 15-18°C for a sports hall), without exceeding the 27°C **floor covering / subfloor interface** temperature laid down in BS 8203.

It should be noted that there is, at present, a conflict between the above-mentioned BS8203 and the Underfloor Heating System Standard BS.EN 1264. This Standard allows floor surface temperatures of up to 29°C in occupied areas, and 35°C for a strip of 600-800mm width under windows and external walls. If these temperatures were to be achieved on a Sports Floor laid with Taraflex Sport M the **interface** temperatures would be 39°C in occupied areas and 45°C in the 600-800mm area. Further research is needed into the long-term effects of these temperatures but they are far enough above the BS8203 27°C figure to cause real concerns regarding premature ageing, discolouration and changes in the performance of the floorcovering. Other points to consider should include:

- Requirement to heat the hall above the Sport England guideline 15-18°C (many halls are used for other non sporting activities e.g. examinations and meetings)
- Usage of the heating, underfloor heating is better suited to areas where permanent 'background' heating is required and not in areas of intermittent use where rapid heating is required.
- Effect of high interface temperatures on adhesives and subfloor preparation materials.
- Risk from 'accidental' overheating of the floor surface by placement of equipment such as gymnastics mats or solid based furniture.
- Should the heating design take priority over a high performance Sport Flooring?

If the requirements of BS8203 can be achieved then consideration must be given to the installation procedures, these will vary depending on exact site conditions but will require the heating to be commissioned and the floor slab to have dried. The heating system can of course be used to dry the slab although caution must be exercised as too high a heat introduced too quickly can produce cracks. The heating would then have to be turned off for 48 hours, left off during installation of the flooring and for 48 hours afterwards, it can then be turned back on and brought up to normal operating temperature over several days.

Please note that it is essential that subfloors containing underfloor heating are dried before installing any resilient PVC floor covering. Surface DPM's and loose laid underlay membranes cannot generally be used.

IMPORTANT NOTE: Due to the additional thermal resistance and resultant very high interface temperatures Gerflor Combisport System and Sport Performance Plus cannot be used over underfloor heating systems.

CONTRACT FLOORING ASSOCIATION & UK RESILIENT FLOORCOVERING MANUFACTURERS ASSOCIATION

JOINT GUIDANCE NOTE ON UNDERFLOOR HEATING September 2003

It is imperative that underfloor heating systems have been previously commissioned and found to be functioning correctly prior to the floor finish being installed. Ensure that the underfloor heating system is switched off 48 hours prior to the floorcovering installation commencing and remains off for at least 48 hours after the installation is complete. During the period of decommissioning of the underfloor heating system, an alternative heating source should be provided, if required, to ensure that the area of installation is kept at a constant temperature of 18°C - 27°C. Gradually increase the temperature over a number of days by only a few degrees per day until the desired room temperature is reached. The temperature should never exceed the floorcovering industry agreed maximum of 27°C at the underside of the floorcovering (the adhesive line). Failure to follow these guidelines can result in the floorcovering de-bonding, joints opening, and on some occasions discolouring, all of which can occur within a long or short period of time.

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