COREPEL FLOORS · TECHNICAL NOTE

Underfloor heating and cooling

COREPEL SPC (click) and PRO LINE Dryback on hydronic and electric systems

SURFACE MAX.	R SPC INCL. UNDERLAY	SYSTEM LIMIT
27 °C, permanently	**0.0252 m²K/W**	**≤ 0.15 m²K/W**
MOISTURE, HEATED	**COOLING**	**ROOM CLIMATE**
cement ≤ 1.8 CM-% · $CaSO_4$ ≤ 0.3 CM-%	**min. 3 K above dew point**	**18–24 °C · 35–65 % RH**

COREPEL SPC and PRO LINE Dryback are suitable for underfloor heating. The low thermal resistance of COREPEL SPC (0.0252 m²K/W including the integrated IXPE underlay) is well below the limit of 0.15 m²K/W for the complete floor build-up under EN 1264. The system must be properly designed and controlled. National standards and codes of practice apply in addition.

01 A · HYDRONIC (WARM WATER) HEATING

- Screeds must be built to EN 1264 and the national rules and heated up before installation. Keep the heating log.
- Residual moisture (CM): cement screed max. 1.8 %, calcium sulphate screed max. 0.3 %, or the national limit.
- Lower the heating to approx. 18 °C surface temperature 48 hours before and during installation.
- After installation raise the temperature step by step, max. 5 °C per day, to operating level. For Dryback only after the adhesive has fully set.
- The floor surface temperature must never permanently exceed 27 °C. Set the room thermostat or flow limiter accordingly.
- SPC (floating): on mineral screeds lay a PE vapour control layer (min. 0.2 mm) with 20 cm overlaps. No extra underlay: it is integrated.

02 A+ · WITH COOLING FUNCTION

- Surface cooling does not replace air conditioning and requires a dew-point sensor.
- The flow temperature must be at least 3 K above the dew point in the room. Condensation under the floor damages screed and flooring.
- Relative humidity at the cooled surface max. 75 % short-term and 65 % long-term.
- Monitor temperature and humidity all year; sensors close to the floor.

03 B · ELECTRIC UNDERFLOOR HEATING

- Suitable are electric systems embedded in the screed or levelling layer that deliver heat evenly over the whole surface.
- Heating foils or mats directly under floating SPC only if the heating manufacturer explicitly approves them for vinyl/SPC click floors.
- Mandatory: thermostat with floor sensor limiting the surface temperature to 27 °C, installed to the heating manufacturer's instructions.
- Dryback over heating mats: the levelling and adhesive system must be approved for this build-up by its manufacturer.

04 ALL SYSTEMS

- Do not cover heated areas with large rugs, runners or mats: heat build-up.
- Do not place furniture without feet (e.g. plinth cabinets) directly on heated areas.
- Keep a normal living climate all year; humidify in winter if the air is very dry.
- The heating manufacturer's instructions apply in addition.

05 POSSIBLE DAMAGE IF NOT OBSERVED

- Gaps at long and end joints
- Cupping or doming of single planks
- Loss of adhesion (Dryback)
- Condensation and damage to the screed (cooling)

Damage caused by exceeding the permitted temperatures or by extreme temperature and humidity fluctuations is excluded from the manufacturer's guarantee. Standards: EN 1264, EN 15377 and the national standards of the country of installation.