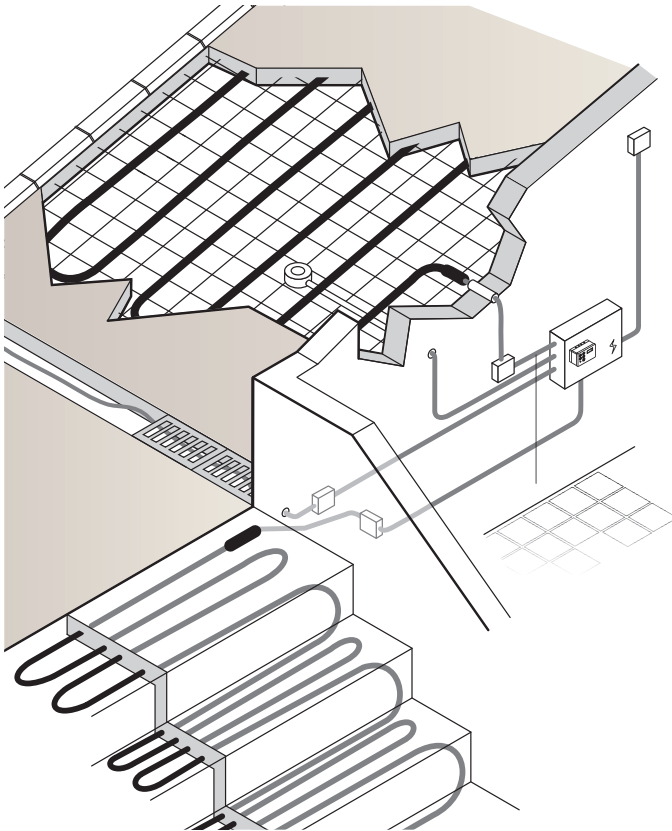


## Specification guideline snow and ice melting system for ramps & access ways



- All exposed ramps/walkways shall be fitted with a rugged, constant power cable, Raychem WINTERGARD-CABLE, as manufactured by Chemelex, approved to IEC60800, UKCA and CE to prevent impeded access in winter.
- The heating cable shall be a twin core constant power type, in accordance with IEC60800, with an integrated earth continuity cooper drain wire with 100% aluminum tape for additional electrical safety and mechanical protection. It shall be preterminated by the manufacturer onto a 3 core cold lead for direct connection into a junction box or control panel.
- The heating cable must be capable of demonstrating a life expectancy in excess of 20 years.
- The system shall be capable of producing a power output up to 300 W/m<sup>2</sup> and be powered by a 230 VAC supply.
- The heating cable shall be installed, tested & commissioned strictly according to the manufacturer's instructions, directly onto a stable subsurface, using the Raychem spacer rail or attached to a reinforcement bar/grid, covered by sand & tiles, asphalt or concrete.
- The ramp heating control system shall be energy-efficient, with ground temperature and moisture sensors, as manufactured by Chemelex and known as Raychem Elexant 650c-Modbus. It shall have the following functions - digital display, monitoring of sensor defects, alarm relay for remote monitoring at the BMS.
- The ramp heating circuits shall be switched via a contactor and be protected with an MCB (BS EN 60898 type C or D or equivalent) and RCD (30 mA sensitivity, tripping within 100 ms). Isolators shall be provided for each circuit.
- Wiring between the control panel, the control sensors, the contactor, the ramp heating circuit's terminal boxes and the distribution board shall be done by an electrical contractor.
- The Raychem WINTERGARD-CABLE is used for mastic asphalt, laid in 2 asphalt layers: Raychem WINTERGARD-CABLE must be embedded in the 1st asphalt layer. Asphalt must be laid manually, roll weight up to 1.5 tons. The use of heavy road pavers and road rollers must be avoided. IMPORTANT: Only the Raychem EM2-MI heating cable is recommended for the mechanical processing of mastic asphalt and is especially suitable for road asphalt.

### IN ENGINEERING NOTES COLUMN

- All exposed ramps and walkways shall be fitted with a rugged, constant power cable, Raychem WINTERGARD-CABLE, to prevent impeded access in winter.
- All ramp heating circuits shall be controlled via an energy-efficient system with ground temperature and moisture sensors, known as Raychem Elexant 650c-Modbus.
- The heating cable shall be installed, tested & commissioned strictly according to the manufacturer's instructions, directly onto a stable subsurface, using the Raychem spacer rail or attached to a reinforcement bar/grid, covered by sand & tiles, concrete or smaller asphalt surface.

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