

NOTES to SPECIFYING

ENGINEER

ElectroMelt is a ruggedly built, repairable, parallel circuit heating cable specifically designed and LISTED for direct burial in concrete for snow removal and de-icing. Direct contact with the concrete eliminates insulation barriers and allows the cable to generate enormous heat output (30-40 watts/ft depending on voltage and temperature). Cable spacing in many climates is one foot on centers compared to 4" or less with various MI cable technologies (see ElectroMelt Design Guide).

ElectroMelt and should be powered with 277v if possible. The product works fine with 208, 220, 230, 240 volts but 277v power generates more heat output per foot of cable AND requires the breaking of only one leg of a circuit to turn a circuit off.

ElectroMelt installations allow for a single monolithic concrete pour saving time, money, and delivering a substantial increase in strength. Installation of less rugged products requires a base concrete pour, placement of the heating cable (or "snow mats"), and then another concrete pour for cover. Regardless of manufacturers' claims, when new concrete is poured on top of cured concrete, the second pour does not truly bond to the concrete base. The top pour will always be "floating" on the base and be less resistant to cracking, physical abuse, water intrusion, and freezing.

Steps, regardless of depth, require two runs of ElectroMelt. Steps are generally elevated, the front and top sides are always exposed, and many times the bottom is exposed. Steps lose more heat and, therefore, require more heat input per given area than slab on-grade construction. Additionally, if steps are exposed to the weather the back side, they may (depending upon climate, construction materials, etc.) require insulation

ElectroMelt installations have no metallic components exposed to the environment. The product should easily outlast all products with metallic covers (even stainless) in poured concrete applications. The corrosive constituents in concrete have little effect on ElectroMelt. Generally, metallic heating cable cannot approach the serviceability of ElectroMelt in this environment.

Concrete structural integrity is also sensitive to elevated temperatures and can be damaged by "over-heat". Powering some constant wattage heating cables on a 38° or higher day can quickly weaken the concrete and permanently damage the cable. ElectroMelt is a self-regulating cable with a design that calls for heat output to go down as temperature goes up. Even in a powered state, ElectroMelt cannot "over-heat" the slab or itself under normal conditions.

Elevated concrete pours (heliports, parking garages, etc.) will almost certainly require computer modeling to arrive at the correct design. Please call INDUSTRIAL HEATER for assistance. (901)382-4761