**Use of Deicing chemicals**

Concrete Arts recommends that deicing chemicals of any kind be avoided for exterior concrete as they can cause surface deterioration over time. That said, we recognize that public safety is paramount when discussing the removal of snow and ice from exterior concrete. • Deicers lower the freezing point of water that can increase the number of freezing-and-thawing cycles and can increase the propensity for the restoration of concrete during the thawing period. (ACI 302.1R-15)

The use of deicers is discouraged on concrete. In many cases, the use of deicers may not be covered under and may void the warranty. If the customer decides that deicers are anticipated to be used for winter safety, the concrete should be specifically designed and placed in a method to resist scaling. In addition, the type of deicer and its application amount and frequency should be evaluated for its potential effect on concrete surfaces. (American Concrete Institute ACI 302.1R-15, “Guide to Concrete Floor and Slab Construction”)

Should deicers be used, try to minimize the use of deicers since they increase the frequency and severity of freezing and thawing on concrete. Deicers, such as sodium chloride, urea, and weak solutions of calcium chloride, do not chemically attack concrete; however, deicers containing ammonium sulfate or ammonium nitrate will rapidly disintegrate concrete and should not be used. (ACI 302.1R-15)

The presence of a deicing solution in water-soaked concrete during repetitive freezing-and-thawing cycles can cause an additional buildup of internal pressure. Ensure proper drainage and do not let water or deicer stand on the surface for extended periods of time. Deicer carried on cars can damage recently placed concrete. Properly maintained concrete may but cannot insure to reduce the detrimental effects of deicing chemicals. Avoid using deicing chemicals on your concrete, especially for the first winter. Sand or Cherry Stone® Traction Grit can be used for increased slip resistance.