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Use of Deicing Agents on your Concrete Surface may be Harmful

Ohio Concrete strongly recommends against using any form of salts or deicers during the first winter. All owners need to be informed on its effects and damaging results to exterior concrete surfaces that are exposed to winter conditions. Careful, sparing and cautious use of any labeled product claiming 'safe on concrete' can be harmful even after the concrete has aged. Closely read and adhere to the manufacture's application and use instructions.

Useful Tips to Owners:

First Winter. Owners should be advised to not use any form of salt or other deicers during the first winter, especially if concrete was placed after September 15th and was not air dried and sealed. All types of deicers will lower the freezing point of the water solution, increase the degree of saturation into the concrete and increase the number of freezing-and-thawing cycles. Exposure to salt prior to concrete achieving its maturity and durability will therefor cause freeze/thaw scaling damage. We suggest the use of sand instead to improve traction.

Proper & Safe Use of Deicers. Deicers containing salt and/or calcium chloride should be generally safe for use on a quality concrete pavement after the first winter. However, they are to be used to 'undercut' or loosening ice and snowpack and shoveled or plowed away. Do not use salts or deicers to completely melt away ice or snow since the solution can deeply penetrate and lead to scaling damage. Never use any deicer that contains either magnesium, ammonium sulfate or ammonium nitrate (fertilizer). Deicers containing these products will chemically attack concrete and damage concrete. Anyone who buys a deicer under a brand name should read the label to see what it contains.

Sealers. Water-repellent coatings and sealers can help prevent damage from freeze/thaw cycles and salting. They deter water from getting into the surface pores. Note that some sealers containing waxes will cause darkening of the slab; we suggest silane or siloxane based penetrating sealers that dry clear. The concrete should be reasonably dry when applying the sealer and best done as the concrete is cooling down rather than heating up, which usually occurs in the late afternoon or early evening. Newly cured concrete should have a period of air-drying before being sealed. Use of a conventional curing compound followed two months later by a conventional sealer is recommended rather than the popular misconception of a one-step application. Most quality concrete sealer applications are effective for about a two-year period. Refer to the manufacturer's instructions for re-application.