



Icewick

Anti-slip grate



Features

- *Anti-slip grate*
- *Prevents ice from forming*
- *Protects walkways, stairs, ship decks, and work areas*
- *Passive and self-regulating*
- *Damage tolerant*
- *Easy installation*

Overview

Icewick is an anti-icing and anti-slip grate for marine and non-marine applications. The *Icewick* surface consists of robust grating or tiles that wick an anti-icing fluid to the icing-prone surface from a reservoir layer located beneath. *Icewick* is designed for use on walkways, stairs, ship decks and in work areas. The system is passive and self-regulating. Fluid can be supplied from a remote location by pump if necessary

Icewick exploits wicking action which utilizes a porous material or wicks that are incorporated within the grating or tile matrix. The base of the wicks are submerged in the anti-icing fluid such that it is drawn to the top surface of the grate. Thus, the formation of ice or accumulation of snow is prevented.

A reservoir system feeds the wicks. The reservoir can either be a dedicated layer and/or be tied into an adjacent or remote reservoir via pumping. Recessing the wicks immediately below the surface allows the fluid to reach the icing substrate yet minimizing tracking.

A key capability of the system is that the melt-water can be absorbed along with the diluted anti-icing fluid, rather than flowing to adjacent surfaces where it could cause other problems. The large surface area of the system helps to evaporate the melt-water. Thus, the full potency of the anti-icing fluid is maintained, and the melt-water is disposed of.

Icewick works well with potassium acetate, which is a highly effective freezing point depressant. Its hygroscopic nature maintains the appropriate chemical potency in a changing moisture environment. It cannot dry out or over-dilute from humidity. Potassium acetate has a sufficiently low corrosivity so that it can be used on aircraft runways as well; it is applied as a liquid to temperatures as low as -29°C .

The *Icewick* Grate comes in various profiles depending on the reservoir capacity and performance requirements. The standard thickness is 2 cm.

