

Ice Free Zone®

Environmentally friendly anti-ice liquid

An anti-icing agent that remains in place and activates when needed

Ice Free Zone® has multiple uses, last longer than any other product on the market and is 100% environmentally friendly.

Ice Free Zone® can be used to combat many ice related problems on the railroad such as: • Undercarriages • Bogies • Crossing arms • Signals and lenses • Car couplers • Doors and chutes • Movable bridges • Flangeways • Tunnel walls • All types of Switches • Overhead crane rails • Stock rails • Chain hoists – and other vital areas where ice can interfere with operations.

Applied prior to a snow fall or freezing rain conditions or winter storms, SolliQ's Ice Free Zone will remain in place and activate when needed. More efficient than rail heaters, it melts falling and blowing snow to prevent switches from freezing

ensuring uninterrupted switch operation in freezing temperatures.

“Smart Fluid”

Ice Free Zone® utilizes a NASA Smart Fluid technology Patent Number 5,772,912 that we have enhanced and call Easy Applied Liquids (EAL), and co-developed by SolliQ AB and its research and development company SolliQ AF AB. EAL Smart Fluid technology is a patented and licensed capability which permits Ice Free Zone® to be poured or sprayed in its liquid state, and become a thin “gel-like” coating in its activated state. Smart Fluid technology allows the same substance to be a liquid and then transform itself into an extremely resilient coating that will stay in place, even on vertical surfaces.

IFZ® keeps your railroad free from ice & snow. It's economically beneficial and a very effective proactive tool to enhance your operational time-in-service.



Automatic Ice free Zone® Liquid Applied using a RAATS machine.

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Benefits

- Multi-component glycerin-based liquid flows easily at -40° C.
- Prevents trains and railroad switches from freezing and re-freezing down to -40° C.
- Non-flammable, non-corrosive, & non-conductive.
- High viscosity prevents run-off during application.
- Adhesive ability allow it to stick to vertical surfaces.
- Can remain on bogies traveling at 300km/h for 600km to 800km depending upon climatic conditions.
- Remains on switches until depleted (about 15cm to 20 cm of snow).
- Completely biodegradable and water soluble.



Manual Liquid Application with Backpack Sprayer.



Automatic Liquid Application with RADASS machine.

Technical properties

Color	Pale Straw
Solubility in Water	Complete
Applicering	Spray, pour, brush
Density Kg/m³	1,16 - 1,20
Ideal climate	Dry, normal, rainy
Can be poured at	-40°C

Application Methods

Ice Free Zone® can be applied manually or automatically.

Manual application is usually done with a battery operated backpack sprayer.

Switch automatic application is accomplished using SolliQ's Remote Access Dual Automatic Switch Sprayer (RADASS).

Train application is accomplished using SolliQ's Remote Access Automatic Train Sprayer (RAATS). Both systems are standalone and fully operational during extreme winter conditions to less than -40°C.

Ice Free Zone® can be delivered in IBC (1040 liters tanks) or 17,000 liters ISO containers.

Ideal for high speed trains and switches.

