TECHNICAL DATA SHEET (TDS)

POLIDE ICE

Potassium Acetate-Based Runway and Apron Deicer

De-icing & Anti-icing • AMS 1435

Product Description

POLIDE ICE is an aqueous deicing solution containing 50 % potassium acetate, developed to melt ice and snow and to prevent re-icing on airport runways, taxiways and aprons. It acts as a freezing point depressant.

The corrosion inhibitors in its formulation ensure that materials used in aircraft construction are not attacked. Used together with the mechanical equipment of airport maintenance teams and modern spraying techniques, it allows snow and ice to be cleared quickly and economically and provides long-lasting protection against renewed icing.

Features and Benefits

- **AMS 1435 compliant:** Manufactured to the aerospace specification for liquid runway deicers.
- **Low freezing point:** Remains effective below −50 °C.
- **Fast action:** Its liquid form works on contact with the surface.
- **Low corrosion:** Contains no chlorides; inhibited so as not to attack aircraft metals or runway light fittings.
- **Environmentally responsible:** Readily biodegradable with a low biological oxygen demand (BOD); contains no urea, glycol, nitrite or triazole.
- **Multi-purpose:** Used for de-icing, anti-icing and pre-wetting of solid deicers.



1,000 kg IBC tank

Packaging

POLIDE ICE is supplied in 60 kg drums, 1,000 kg IBC tanks and 1,250 kg IBC tanks.

Storage and Material Compatibility

- Store in the original, tightly closed container; do not store near acids.
- Must not be stored in or pumped through systems with galvanised, zinc or brass components.
- As the freezing point of the product is below −50 °C there is no risk of freezing in outdoor storage; protect from direct sunlight.

Equipment

POLIDE ICE is applied with the airport’s existing spraying vehicles; generally vehicle-mounted liquid sprayers with nozzle spray bars, tanker-type liquid spraying vehicles or hand-held liquid spraying equipment are used. The required quantity per square metre must be adjusted according to the recommendation of the respective spraying vehicle, taking the density of the product into account.

Technical Properties

Property	Value	Method
Specification	AMS 1435	—
Active substance	50 % potassium acetate (aqueous solution)	—
Colour and appearance	Colourless, clear liquid	—
Odour	Characteristic	—
Freezing point	< −50 °C (−55 °C)	DIN ISO 3016
Boiling point	116 °C	—
Flash point	Non-flammable	—
Ignition temperature	> 550 °C	DIN 51794
Density (20 °C)	1.27 g/cm³	DIN 51757
pH (20 °C)	9.76	DIN 19268
Viscosity (20 °C)	10 cP	—
Solubility in water	Fully soluble (20 °C)	—
Solid residue	< 0.01 %	—
Free of	Chlorides, urea, glycol, nitrite, triazole	—
Shelf life	At least 2 years (in original packaging)	—

Application

POLIDE ICE is applied in two ways. De-icing is the removal of ice and snow already formed on the runway surface. Anti-icing is the preventive application made to protect the runway when freezing rain or snow is expected. If an ice or snow layer has already formed on aprons, POLIDE ICE should preferably be used together with a solid deicer.

De-icing – recommended quantities

Runway condition	0 / −5 °C	−5 / −10 °C	Below −10 °C
Ice, packed snow	10 – 20 g/m²	20 – 30 g/m²	30 – 40 g/m²
Snow, snowfall	25 – 35 g/m²	35 – 45 g/m²	45 – 55 g/m²
Ice, freezing rain	30 – 40 g/m²	40 – 50 g/m²	50 – 60 g/m²

Anti-icing – recommended quantity

Weather condition	Application rate
Freezing rain or wet snow expected	20 – 30 g/m²

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