

# **ANTIFREEZE PROTECTOR ALPHI-11**

- Renders water non-corrosive to steel, cast iron, copper, brass and aluminium
- Combined antifreeze and protector
- Prevents limescale build-up
- Compatible with all metals and materials commonly used in heating systems
- Maintains efficiency so extending system life
- Non-toxic, environmentally friendly
- Protects heating and chilled water
  DI Water or Soft water not needed. Fernox Alphi-11 will buffer on site Tap or Well water pH to neutral and also reduce hardness levels to less than 120ppm / 7 grains.



## Product Uses

Fernox Antifreeze Protector Alphi-11 is a combined antifreeze and inhibitor, which gives long-term protection against internal corrosion and limescale in commercial heating and chilled water systems. Fernox Antifreeze Protector Alphi-11 is compatible with all metals and materials commonly used in central heating systems, including aluminium.

For continued protection we recommend protector levels are checked regularly (annually). The concentration of the product can be easily measured on-site using a Fernox Protector Test Kit.

## **Physical Properties**

Fernox Antifreeze Protector Alphi-11 contains mono-propylene glycol.

Colour:	Colourless		
Odour:	Mild		
Form:	Clear liquid		
pH (conc)	5.7 – 6.1		
pH (soln 25%):	7.0 – 7.5		

## **Application and Dosage**

The minimum recommended 'in-use' concentration of the product is 25% in order to ensure adequate corrosion protection. This concentration will protect down to -11°C/12.2°F. A concentration of 40% will protect down to -22°C/-7.6°F. Antifreeze Protector Alphi-11 can be introduced via the feed and expansion tank or injected directly into the system via a suitable point (e.g. dosing pot). Introduce into the system after having drained a quantity of water at least equal to the amount of Alphi-11 to be added. Engage the circulating pump and have the system online for a few hours in order to achieve an even distribution.

Alphi-11 can be used with regular on site water and no need to adjust the Ph prior to application.

Alphi-11 %	25%	30%	35%	40%	45%	50%
Freezing point deg F	12.2	5	-0.4	-7.6	-16.6	-29.2
Burst point deg F	0	-20	-40	- <mark>60</mark>	-70	-80

We recommend untreated systems are thoroughly cleansed and flushed using Fernox HVAC Cleaner F3 before treating with Fernox Antifreeze Protector Alphi-11 as existing debris can damage the installation.





#### Hardness Fill Water spec limits:

Fernox Alphi-11 has ability to buffer high hardness levels up to 1300 ppm/ 70 grains. Above these levels it is recommended to use 2 options. 1. after dosing of Alphi-11 use fernox Water test kit and check hardness levels once circulated in system. If still above 120 ppm/7 grains add additional F1 inhibitor to system to lower hardness further. Option 2. In many cases where extreme hardness is present a demineralizer filter can also be used if desired.

#### **Iron Content Protection:**

Typical clear water high iron content is in range of 3-6 mg/L and even worse the red iron water is approx 15-20 mg/L. Fernox will protect up to 80 mg/L.

#### Packaging, Handling and Storage

Fernox Antifreeze Protector Alphi-11 is supplied in 5 and 55 Gallon containers. 330 Gal. Totes also Available.

Fernox Antifreeze Protector Alphi-11 is classified as non-hazardous and non-irritant, but as with all chemicals keep out of reach of children. Do not mix with other chemicals with the exception of Fernox products. Do not take internally. In case of contact with eyes or skin, rinse immediately with plenty of water.

Item numbers 5 Gallon - 155738-0005 55 Gallon - 155738-0055