

## CENTRAL HEATING CLEANER F3

- Neutral universal cleaner for pre-commissioning new systems in accordance with BS7593:2006
- Removes sludge, limescale and other debris to restore heating efficiency of existing systems
- When used in conjunction with Protector F1 gas savings of up to 15% can be achieved every time you heat your room
- Carbon Footprint certified by the Carbon Trust
- Compatible with all metals and materials commonly used in heating systems
- Easy to use, system can be left running normally during cleaning
- Suitable for use with all known powerflushing machines
- pH Neutral, non-hazardous formula (COSHH rated zero)



### Product Description

Fernox Cleaner F3 is a quick and effective pH neutral cleaner for central heating systems. It is designed to remove all debris, sludge and scale from existing systems of all ages. In this way, it will restore heating efficiency and eliminate or reduce boiler noise. It has also been designed for pre-commission cleansing new installations in accordance with BS7593, removing flux residues and other debris, thereby helping extend the life of a system.

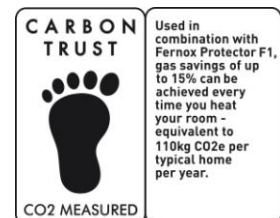
For older sludged systems, Cleaner F3 is particularly effective when used in conjunction with a powerflushing unit. If the system is heavily scaled the use of Fernox DS40 System Cleaner is recommended. Cleaner F3 is a neutral, non-hazardous product that is well inhibited and compatible with all metals and materials commonly used in heating systems.

For continued long term protection the system should be thoroughly cleansed and flushed in accordance with BS7593:2006 and Benchmark using Fernox Cleaner F3, before treating with Fernox Protector F1. We recommend Protector levels are checked regularly (annually).

### Carbon Footprinting

We have worked with the Carbon Trust to measure the carbon emissions of Fernox Cleaner F3 500ml. We have undergone rigorous carbon analysis to enable Cleaner F3 500ml to carry the Carbon Reduction Label. The following communication statement has been approved by the Carbon Trust;

***'Cleaning a central heating system using Fernox F3 Cleaner, and protect with Fernox F1 Protector can restore and maintain system efficiency resulting in a gas saving of up to 15% every time you heat your room. This saving is equivalent to 110 Kg CO<sub>2</sub>e per typical home per year.'***



## Physical Properties

Colour:	Dark amber
Odour:	Faint
Form:	Liquid
pH (conc):	7.0 - 7.5
pH (1% soln)	7.5 - 7.8
SG:	1.20 @ 20°C

## Application and Dosage

One 500 ml bottle of Cleaner F3 is sufficient to clean a typical domestic central heating system (average 3 to 4 bedroom house or 100 litres). Additional/repeat applications of Cleaner F3 may be necessary for larger systems, or if systems are heavily sludged. First drain and refill the entire system with plain water. For optimum results the entire system, including drop feed radiators where fitted, should be completely drainable. Preferably, full bore gate valves with hose connectors should be provided temporarily for this purpose. Motorised and thermostatically controlled valves must be set so that no part of the system is closed off during cleansing or rinsing. Discharges must be made to the foul drain and not the surface water drain.

For open vented systems add Fernox Cleaner F3 via the header tank. For sealed systems add via a radiator using a Fernox Injector. Fernox Cleaner F3 can also be used in conjunction with a powerflushing unit. In this case, please refer to the unit manufacturer's instructions.

When pre-commission cleansing new systems, Fernox Cleaner F3 should be circulated for a minimum of one hour at normal operating temperature. For cleaning existing systems, sludge and debris should be dispersed also within one hour at normal operating temperatures. However, to remove hardened iron oxides and limescale, the cleaning time can be extended to up to one week under the normal heating cycle. If a radiator still has a cold spot after one hour, increase the flow through the radiator by closing the valves on the other radiators. An additional or repeat dose of Cleaner F3 may be necessary in some cases.

Drain and flush thoroughly, at least twice, until the water runs clear. When using Cleaner F3 with a powerflushing machine, cleaning should be completed within an hour. Use dynamic flushing with plain water until the water is clear.

Refill the system adding Fernox Protector F1 for long term protection against corrosion and limescale.

In single feed indirect cylinders, e.g. "Primatic" or similar, potable water chemicals must be used.

## Packaging, Handling and Storage

Fernox Cleaner F3 is supplied in 500 ml containers.

Fernox Cleaner F3 is not classified as hazardous but, as with all chemicals, care should be taken. Do not mix with any other chemicals other than Fernox products stated. Keep out of the reach of children.