

## CENTRAL HEATING CLEANER F3

- Neutral universal cleanser for pre-commissioning new systems in accordance with BS7593:2006
- Removes sludge and scale and restores heating efficiency of existing systems
- Removes flux residues and other debris
- Compatible with all metals and materials commonly used in heating systems
- Easy to use system can be left running normally during cleansing
- Suitable for use with all known powerflushing machines
- Neutral, non-hazardous formula (COSHH rated zero)



### Product Description

Fernox Cleaner F3 is a quick and effective 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 BS7593:2006, 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).

### 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 1 hour at normal operating temperature. For cleansing existing systems, sludge and debris should be dispersed also within 1 hour at normal operating temperatures. However, to remove hardened iron oxides and limescale, the cleaning time can be extended to up to 1 week under the normal heating cycle. If a radiator still has a cold spot after 1 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 unit, cleaning should be completed within an hour. Use dynamic flushing with plain water until the water is clear.

Refill the system adding a suitable 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 classified as non-hazardous. In case of contact with skin or eyes, rinse with water. If soreness persists seek medical attention. Not to be taken internally. If swallowed do not induce vomiting. Drink copious amounts of water. Keep out of reach of children.