

DS40 DESCALER & SYSTEM CLEANER

- Rapidly removes limescale, black sludge and other deposits
- Restores circulation and improves heating efficiency where scale build-up is present
- Free-flowing powder for easy use with powerflushing units or application via F%E tank or Injector (for sealed systems)
- Turns yellow when product exhausted
- Compatible with all mixed metal systems
- Neutralizer packets included in each box



Product Uses

For fast-acting removal of limescale, black sludge (magnetite) and other deposits from hydronic heat exchangers and systems. Designed for use with powerflushing units for more efficient, rapid cleaning. Can be used separately to descale a boiler.

For tankless water heaters where limescale build-up is evident, DS40 Descaler and System Cleaner can be used by utilizing an acid resistant pumping station and circulating the solution to remove limescale. The solution should then be neutralized and the water heater thoroughly flushed with clean water before use.

Physical Properties

	DS40	System Neutralizer
Colour:	Red	White
Odour:	Faint (in solution)	None
Form:	Powder	Powder
pH:	2 - 3 (2% w/w solution)	11.8 (10% w/w solution)
SG:	n/a	n/a

Application & Dosage

Hydronic Systems

For detailed instructions on the cleaning of hydronic systems using DS40 Descaler and System Cleaner, please refer to the instruction leaflet inside the box. The product can be poured as a free-flowing powder directly into a powerflushing unit or an acid proof pumping station. Alternatively, by pre-dissolving in warm water, the product can be added by any suitable dosing system; for example, a set of bypass valves and hose set.

For a domestic system, one box 4.1 lbs (1.9 kg) is usually sufficient to clean approximately 40 gallons. During the early part of the clean, after 5-10 minutes, a color change of red to yellow indicates that the product is exhausted and more powder needs to be added.

Once the clean has been completed, add the packets of System Neutralizer until the solution turns yellow. If the water is still red, more neutralizer will need to be added. If the two packets are inadequate, additional System Neutralizer can be purchased from Fernox dealers. The system must be drained down and flushed several times with fresh water until the water running to drain is clear. The use of a Fernox TDS Meter is also recommended to achieve a reading on the flushing water of within 10% of mains water. Reverse flush also helps remove scale particles and pieces that may settle.



After the final drain, it is recommended that closed loop hydronic systems are protected using Fernox Protector F1. DS40 Descaler and System Cleaner can also be used in commercial hydronic systems to descale heat exchangers.

Tankless Water Heaters

When treating an isolated domestic heat exchanger or tankless water heater, one cup or eight ounces of DS40 Descaler and System Cleaner added to three gallons of warm water in a small acid proof pumping station will typically descale in 30 - 40 minutes. In situations of heavy scale, the process may need to be repeated. Once the clean has been completed, add gradually 1-2 tablespoons of System Neutralizer supplied until the solution turns yellow. If the water is still red, more neutralizer will need to be added. To complete the clean, drain the system and flush thoroughly several times with clean water.

As DS40 Descaler and System Cleaner is a powdered product, it is vital to ensure that no residual/un-dissolved powder is left in the water heater. The use of a Fernox TDS Meter is strongly recommended to achieve a reading on the flushing water to match the mains water. A pH measurement can also be utilized (mains water vs system water) in conjunction with a Fernox TDS Meter. The pH measurement may give a correct pH, but will not detect any cleaner residues/dissolved solids left in the water that a Fernox TDS Meter will detect.

Important: It is essential to ensure the water heater system is thoroughly flushed and contains only fresh mains/tap water prior to use. Contact with cleaner/neutralizer and associated residues should be avoided hence the need for effective flushing. If you are unsure do not use. For further advice please call the Fernox technical helpline on 1-800 289 3797 or email technical@fernox.com.

Warning: DS40 Descaler and System Cleaner is a mild acid and not recommended for systems older than ten years or systems that exhibit any signs of heavy damage from corrosion.

Packaging, Handling and Storage

Fernox DS40 Descaler and System Cleaner is supplied in 4.1 lbs (1.9 kg) containers.

Warning. Causes serious eye irritation. Causes skin irritation. Read label before use. Keep out of reach of children. If medical advice is needed, have product container or label at hand. Wear protective gloves. Wear eye or face protection. Wash hands thoroughly after handling. IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing. Wash contaminated clothing before reuse. If skin irritation occurs: Get medical attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.

Storage : Store in cool/well-ventilated place. Keep container tightly closed.

Disposal : Dispose of contents and container in accordance with all local, regional, national and international regulations.

Fernox, Altoona PA 1-800 289 3797

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