



ISO 9001 CERTIFIED

## SHALER TECHNICAL BULLETIN

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Page 1 of 1

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Shaler Industrial Seal Pro



Shaler Industrial Seal Pro is the solution for all of your industrial coolant leak needs covering both the cold and hot side. Seals leaks in polyethylene plastic, copper, aluminum, stainless, cast iron and steel piping.

Compatible with ALL types and brands of coolants including ethylene glycol, propylene glycol and salt brine.

Protects the entire cooling / heating system. Will not clog or damage system and is non-toxic. Harmless to ALL plastic, rubber, metals, aluminum, hoses and connections.

### Shaler® Industrial Seal Pro™ Features

- Seals leaks
- Inhibits formation of rust and scale
- Keeps system clean
- Neutralizes pH imbalance
- Controls electrolysis
- Lubricates water pumps
- Compatible with ALL types and brands of coolant
- Conditions and enhances refrigeration / heating system operation.

### ASTM D3147 LABORATORY TEST

Standard Test Method for Testing Stop-Leak Additives for Coolants

This test method covers screening procedures for the preliminary evaluation of leak-stopping materials intended for use in cooling systems.

Gum/Gel Before	No
Gum/Gel After	No
Particles Before	No
Particles After	No
Screen	0.51 mm (0.020 inch)
Final Round	0.64 mm (0.025 inch)
Final Slot	0.25 mm (0.010 inch)
Fluid Lost, mL	495

The results of this test show that a 0.64 mm (0.025 inch) round hole and a 0.25 mm (0.010 inch) wide slot (crack) can be successfully sealed with this product.

### HOW IT WORKS:

**Stop Leak – External Leak** – The particles first adhere to the outside of the seepage and build inward. As the particles hit the outside air, they dry out and expand approximately 15% to form a smooth putty like seal.

**Water Pump Seal Lube** – The material helps in two ways by first keeping the seal facing clean preventing leaks and also because of the wide range of particle size we use, some of the smallest particles actually work like graphite penetrating between the shaft and seal to lubricate and prevent howl & chatter that may occur.

**Water / Coolant Conditioner** – The particles condition the coolant and help prevent rust & scale build-up which causes dead or weak zones and loss of system efficiency. Eliminates this condition both chemically and mechanically.

Chemically – Maintains the pH balance. Controlling pH fluctuations helps in preventing corrosion and also preventing electrolysis pitting.

Mechanically – Buffs and scrubs to help eliminate scale and rust build-up in the system improving heat transfer. Works somewhat like a sacrificial anode in the system to protect inner surfaces.

**Improves Heat Transfer** – Besides keeping the system clean which aids in heat transfer, the particles have a wide range of size and increase the surface area of the coolant. This increase is felt in both absorbing and dispersing heat. Typical results show a 2.5% increase in efficiency in new and old systems between the two loops.