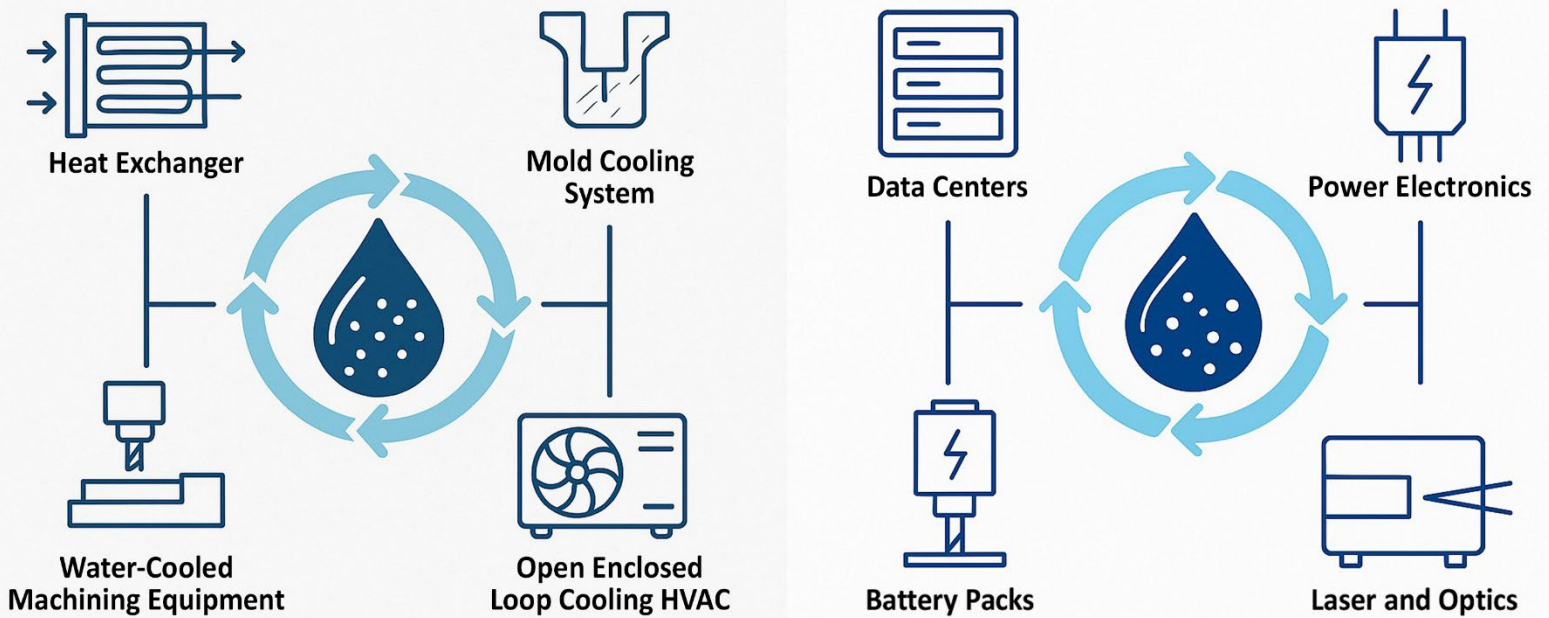


Universal NanoFluid Enhancer for Thermal Systems



NewEraSeal™ Cool Flow

Universal Nanofluid Enhancer for Thermal Systems

Product Info

NewEraSeal™ Cool Flow is a technologically advanced additive designed to enhance the thermal performance and protection of water-based cooling systems. By incorporating a proprietary blend of nano-sized metal oxides and protective polymers, it delivers measurable improvements in heat transfer efficiency while safeguarding system components.

The product operates through a dual-action mechanism. First, the nano metal oxides form an ultra-thin coating along the inner surfaces of cooling channels. This coating significantly improves "wetting" by increasing the surface contact between the coolant and the metal surfaces. This enhanced contact allows heat to transfer more efficiently from the system to the cooling fluid. Second, when suspended in the coolant, the nanoparticles facilitate more effective heat transport through the fluid itself, particularly across heat exchangers, resulting in improved system-wide thermal distribution.

Beyond thermal efficiency, **NewEraSeal™ Cool Flow** provides robust protection against common forms of system degradation. It enhances corrosion resistance by reinforcing surfaces against chemical and moisture exposure and helps to prevent mineral fouling—an issue that can lead to reduced flow efficiency and long-term damage in untreated systems. This makes it particularly useful in demanding environments where reliability and longevity are critical.

Scientifically engineered and patent pending, the formulation is chemically inert, ensuring it will not interfere with pH stabilizers, biocides, or other additives commonly used in maintenance protocols. It is universally compatible with all water-based coolants and is safe for use with metals, rubber components, and plastics. Unlike conventional treatments, it adds no measurable weight or thickness to the surfaces it coats and does not hinder fluid movement through microchannels.

NewEraSeal™ Cool Flow remains fully functional at temperatures up to 750°F (399°C), providing consistent performance even under high thermal loads.

Where to Use

Could be highly effective in the areas suggested and more:

- Heat exchangers
- Mold cooling systems
- Water cooled machining equipment: EDM etc.
- Water cooled processing equipment
- Open and closed loop cooling HVAC equipment
- Data center cooling systems
- Power electronics and inverters
- Battery thermal management
- Laser and optics cooling
- Medical imaging equipment
- Telecom base stations
- Industrial chillers and refrigeration
- Nuclear reactor cooling loops
- CNC and high-speed spindle systems
- 3D printing and additive manufacturing

Its compatibility with water-based fluids, resistance to fouling, and high-temp stability make it a strong candidate for any system where **thermal efficiency, material safety, and flow integrity** are paramount

Features

- Nano oxide-polymer blend
- Improves fluid wetting
- Boosts heat transport
- Chemically inert formula
- Material-safe formulation
- pH and biocide safe
- No added thickness
- Withstands 750°F
- Microchannel compatible

Benefits

- Up to 10% efficiency
- Reduces system corrosion
- Limits mineral buildup

- Supports heat stability
- Compatible with coolants
- Maintains fluid flow
- Extends component lifespan
- Requires no retrofitting

Use Instructions

Preparation

1. Wear PPE to protect skin, eyes and do not ingest.
2. Do not mix with other cleaning products or with polish.
3. Ensure there is adequate ventilation.
4. Cooling channels must be cleaned with **Dr. KlarX™ Calci-Cure** to clear any mineral or bio fouling prior to installing **NewEraSeal™ Cool Flow**.
5. Studies show that as little as 0.3mm of mineral fouling impede heat transfer by 25% to 45%.
6. Channels must be clean to assure proper adherence of the nano metal oxides.
7. Should a spill occur, it can be rinsed with water, no neutralization is needed. Contain the spill and recollect in a suitable container for disposal. It is safe to discharge into the drain.

Application

Use 5% to 10% **NewEraSeal™ Cool Flow** to cooling fluid volume provides optimum performance.

Caution

Do not use this product on a flooring surface as it will become very slippery.

Storage

Store between 40°F and 110°F (room temperature) and keep away from excess heat.
Keep container closed when not in use.

Quick Specs

Size: 4x1-gal bottles, 5-gal Pails and 55-gal Drums

Properties: Light Blue liquid
pH: 7.0 – 8.0

Eco: Non-pollutant for air, water and soil