

FS - THE PEOPLE TO TAKE YOU FURTHER.

When it comes to the success of your operation, you can rely on your local FS Energy Specialists. They are uniquely qualified with the knowledge and expertise to help you improve profits, cut downtime and reduce maintenance expenses. So if you're looking for ways to enhance your profitability, count on the energy experts at FS to help you go further.



fssystem.com

WHEN TEMPERATURES
DROP

**YOUR
ENGINE
WON'T STOP**

**AVOID GELLING FUEL
AND HARMFUL ICING**

Your Challenges. **Our Solutions.**

SURE-FLO™
DIESEL FUEL
COLD FLOW IMPROVER



FREEZING CONDITIONS CAN'T STOP YOU

You can rely on the protection of SURE-FLO™ to minimize fuel gelling and icing.



FORMULATED FOR TODAY'S FUELS

Not all diesel fuels are the same. Some respond well to cold flow improvers, but others don't. At FS, we sample fuels from terminals across our trade territory and determine a fuel's cold filter plugging point (CFPP) before and after treatment with SURE-FLO. It's not enough to know we have one of the industry's best cold flow improvers. We want to know how the fuel is going to perform for our customers who depend on us to keep their equipment running in extreme weather conditions.

MORE POWER AND BETTER FUEL EFFICIENCY

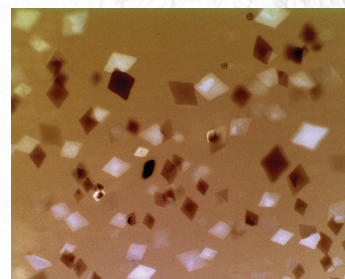
Diesel fuel has traditionally been winterized with large quantities of lighter fuels, such as #1 diesel fuel or kerosene. The resulting blend has a lower CFPP, but also contains fewer BTUs than a fuel that has been treated with SURE-FLO. Lower BTU levels hurt fuel efficiency. Fuels treated with SURE-FLO contain more BTUs than those blended with #1 diesel fuel or kerosene. That translates into more miles or hours per gallon and additional savings compared to traditional blends.

STRONG COLD-TEMPERATURE PERFORMANCE

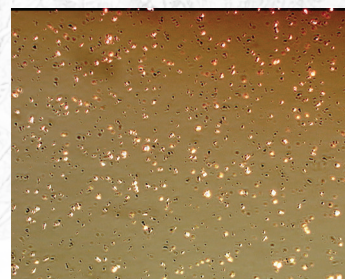
Diesel fuel treated with SURE-FLO keeps fuel flowing through lines and filters long after other fuels have gelled or iced up. Advanced technology provides highly effective anti-gelling and anti-icing protection for safe dependable diesel operation in colder temperatures. Heavy wax modifiers and improved wax anti-settling chemistry ensure fuel flow, even after prolonged periods in storage.

THREE MODES OF COLD WEATHER PROTECTION

- ➔ **Heavy wax modifiers** in SURE-FLO work to prevent wax crystals from bonding together and creating large molecules that plug fuel lines and filters.
- ➔ **Wax anti-settling agents** keep wax molecules suspended throughout the fuel instead of dropping to the bottom and plugging fuel lines
- ➔ **De-icers** similar to those used in jet fuel disperse water molecules to control ice formation throughout the fuel system



Wax crystals in untreated fuel bind together creating larger crystals that plug fuel lines and filters.

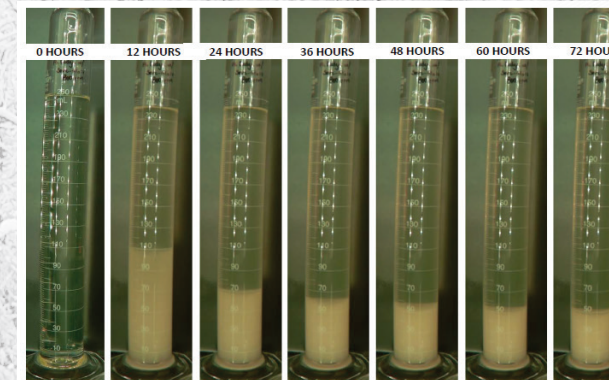


When fuel is treated with SURE-FLO wax crystals remain smaller and dispersed throughout.

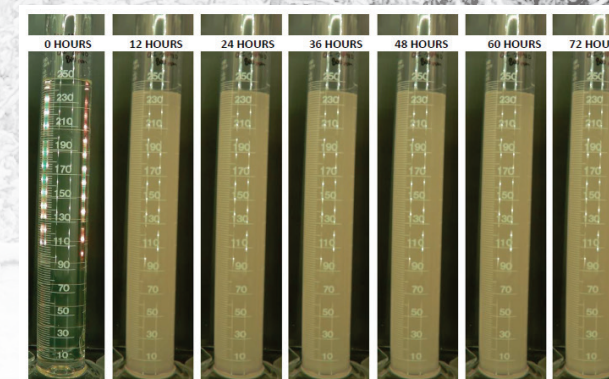
BEST PRACTICES FOR COLD WEATHER FUEL PERFORMANCE

For best results, there are a number of things that you can do to improve cold temperature diesel operability:

- ➔ Check tanks to ensure fuel quality prior to the onset of cold temperatures.
- ➔ Remove water, microbes and contaminants from storage tanks.
- ➔ Replace fuel filters with new ones prior to the onset of cold temperatures.
- ➔ Always use clean fuel meeting ASTM D975 specifications.
- ➔ When possible, top off equipment tanks at the end of the day to reduce condensation.
- ➔ Use the largest micron fuel filter accepted by the equipment manufacturer.
- ➔ 2X rates of SURE-FLO are recommended when treating biodiesel blends.
- ➔ Warm SURE-FLO is easier to pour and blends better with cold fuels.
- ➔ Allow equipment to idle for 30-40 minutes after startup to warm the fuel tank.
- ➔ For best results, blend SURE-FLO when fuel temperatures are 10 - 15 °F above the fuel's cloud point.
- ➔ To rescue stalled equipment, use Red Alert to reliquify gelled fuel and de-ice frozen filters or fuel lines.



Typical Cold Flow Improvers with WASA offer hours of protection from wax settling



SURE-FLO IV offers days of protection from wax settling

