TURBOFLO® FLOW IMPROVER FOR HEAVY CRUDES

TURBOFLO® EXL

Flowchem's TURBOFLO® EXL is a specially formulated emulsion that contains high molecular weight polymer particles in a liquid carrier. This unique composition ensures that when injected into heavy crude pipelines, it effectively minimizes frictional losses, resulting in substantial increases in flow rate and capacity.

To achieve the desired results, **TURBOFLO® EXL** can be injected into pipelines using positive displacement pumps. It is important to note that the feed rate should always be adjusted according to the recommended use rate provided by Flowchem.

One of the key advantages of **TURBOFLO® EXL** is its non-hazardous nature, making it safe for transportation and handling. Flowchem ensures compliance with all shipping regulations to ensure a hassle-free experience for our customers.

TURBOFLO® EXL is a highly effective Flow Improver that has been widely recognized for its ability to enhance flow in Heavy Crude and low-grade crude oil pipelines worldwide. The active ingredients of **TURBOFLO® EXL** exhibit remarkable resilience, ensuring optimal performance even over long pipeline segments without degradation. **TURBOFLO® EXL** is fully compatible with Refinery Processes employed across the globe.

TURBOFLO® EXL possesses an excellent safety profile. Its carrier base is non-toxic and can be handled and stored with complete peace of mind.

What sets **TURBOFLO® EXL** apart is not only its ecofriendly composition but also the significant reduction of energy consumption it achieves in pipelines—up to 60%. This remarkable decrease results in mitigating greenhouse gas emissions by preventing power plants from generating approximately 1000 pounds of CO^2 for every gallon of **TURBOFLO® EXL** utilized. Rest assured that by choosing **TURBOFLO® EXL**, you are making a positive impact on the environment while enjoying unparalleled flow improvement capabilities.

PIPELINE SAFELY

TURBOFLO® Flow Improvers reduce operating pressure requirements while maintaining pipeline rated capacity. Continue normal pipeline operations while maintenance or repair operations are planned and scheduled.

COST SAVINGS

Using **TURBOFLO®** means that more petroleum can be pumped through your pipeline system with existing equipment, saving substantial capital investment costs. **TURBOFLO®** can also be used to shut down existing pumps while maintaining the original flow rate, saving significant energy costs.

INCREASED REVENUES

TURBOFLO® increases pipeline capacity and throughput in trunk lines, production lines, loading lines and refining pro-cess piping. Increased flow means increased revenues.

IMMEDIATE SOLUTION

TURBOFLO® is easy to apply and is immediately available for delivery and installation. Benefits can be realized immediately, instead of months or longer by older traditional methods of laying new pipe or installing more pumps.

TECHNICAL SUPPORT

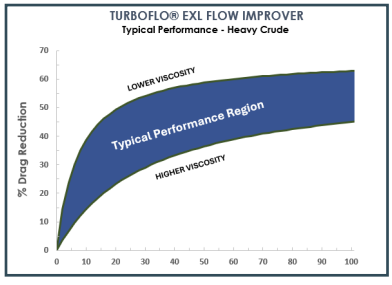
We have specially trained professionals to assist you anywhere you need to use TURBOFLO®. We can help with performance estimating and evaluation, usage optimization, and on-site equipment support and service.

ZERO DOWNTIME

We have reliably treated some of the largest pipelines in the world continuously for years without an interruption of chemical supply and without mechanical down-time. Using **TURBOFLO®** can be as worry-free as the power you use to run your mainline pumps.

TURNKEY SOLUTIONS

Flowchem provides not only TURBOFLO® chemicals, but also the specialized metering pump systems and storage equipment needed to inject the chemical into your pipeline. We can provide our standard-design equipment, or equipment built to your special custom requirements. Our application engineers, logistics sup-port, easy order entry, quick de-livery with our own truck fleet, and field services mean that we are just one phone call or e-mail away from greater pipeline efficiency and profitability!



Product Features & Benefits

TURBOFLO® EXL demonstrates exceptional performance when utilized in a diverse range of Heavy Crude Oils, featuring an API below 22 API. The efficiency of **TURBOFLO® EXL** is influenced by factors such as pipe diameter, oil velocity, temperature, density, and viscosity. It is highly advisable to conduct field trials prior to implementation in order to precisely assess the hydraulic and financial enhancements that **TURBOFLO® EXL** can offer.

Properties

1	FIRE HAZARD
2	HEALTH HAZARD
0	REACTIVITY
-	SPECIFIC HAZARD

Physical State:	Liquid	**Flash Point:**	> 200.0 °F (> 93.3 °C) Closed Cup
Form:	Liquid Suspension	**Flammability (solid, gas):**	Not Applicable
Color:	White	**Vapor Pressure:**	Not Available
Odor:	Not Available	**Vapor Density:**	Not Available
pH:	6.5 - 7.5	**Viscosity:**	100 - 500 cP (77 °F (25 °C)
Freezing Point:	32 °F (0 °C)	**Explosive properties:**	Not explosive
Boiling Point:	Not Available	**Oxidizing properties:**	Not oxidizing
Evaporation Rate:	Not Available		

Shipping & Handling

SHIPPING CONTAINERS

- Bulk transport (truck) approx. 6000 gallons
- 275 gallon (1000 liters) IBC totes
- 550 gallon (2000 liters) IBC totes
- 6600 gallons (25,000 liter) ISO tanks

SHIPPING POINTS

- Flowchem Plant, Waller, Texas USA
- Port of Houston, Texas USA
- Flowchem Plant, Dammam Saudi Arabia
- Key Strategic Distribution Points based on Market demands

HANDLING & STORAGE

- Store product out of direct sunlight
- Maintain temperature within recommended operating range
- Spills are slippery — clean with rags and soapy water — do not use petroleum solvents

For more information on any of our products or services please call us or visit:
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