

## Description

FX 200 pour point depressant is a flow improver formulated to prevent and modify paraffin crystallization in middle distillates to ensure trouble-free winter operations. This is an advanced flow improver designed to cope with higher wax content and narrow boiling range fuels. It lowers the pour point and improves pumpability of the fuel. It also helps distillate fuels to meet pipeline specifications.

Such additives are also used to achieve pour point, cold fuel plugging point, low temperature filterability test requirements set for low temperature operability for most diesel fuels thereby ensuring better flow through fuel filters at temperatures significantly below the cloud point of the fuel.

## Mechanism

As middle distillates cool, these flow improvers interact with paraffin in the fuel. This interaction alters the paraffin's heat of crystallization and reduces the temperature at which they crystallize and thus prevents crystal formation, modify their growth, reduce their shape and size and also prevent them from agglomerates thereby lowering the temperature at which diesel freezes.

Such treated fuels form much smaller crystals vis-à-vis larger two-dimensional plate like crystals that are typical paraffins in diesel fuels. These finally dispersed crystals are more likely to pass through the fuel filters enabling the same fuel to operate satisfactory at lower temperatures.

## Typical specifications<sup>1</sup>

|                          |                 |
|--------------------------|-----------------|
| Appearance               | Organic liquid  |
| Colour                   | Orange to Brown |
| Flash point, COC, °C     | >60 °C          |
| Specific gravity @ 25 °C | 0,850 – 0,950   |

## Advantages

- Reduces fuel Pour point substantially
- Reduces fuel Cold Filter Plugging Point (CFPP) to different extent
- Reduces need to use kerosene for pour or flow control
- Completely organic and ash-free
- Contains no metal, halogens or sulfur
- Does not affect the Cetane index or aromatic content of the fuel
- Enables deeper cut into the barrel for middle distillate use
- Broadens range of crude oil useable for middle distillate production

<sup>1</sup> Product specifications are subject to change.

## Dosage

FX 200 pour point depressant is doped in the diesel oil in proportions of 25-500 ppm. The optimum treat rate would depend upon cloud point, boiling/distillation range and composition of the middle distillate; nature and amount of paraffin wax; level of performance desired, etc.

It is recommended that firstly a mother liquor is prepared by diluting the PPD additive in diesel oil in a 1:10 or 1:15 ratio at temperature above 50°C and later doping the mother liquor into the diesel oil to be treated. Directly treating the additive into the diesel oil may not ensure best performance. It is very important to ensure that the PPD additive is uniformly dispersed in the diesel oil to get best results.

FX 200 PPD must be uniformly blended with the fuel much before wax begins to crystallize (i.e. the fuel temperature must be much above its cloud point when applied)

## Handling and Storage

FX 200 PPD's are stable flow improver and may be stored for several months in shaded warehouse, at moderate temperatures away from flame or other sources of ignition. Do not take internally. Keep away from eyes. Normal precautions in handling organic chemicals should be observed. For further information and instructions read MSDS.