



Biofuel Systems Group Limited
 "Beech Croft"
 51 Ruff Lane, ORMSKIRK
 Lancashire, ENGLAND
 L39 4UL

www.biofuelsystems.com

Wintron XC40

Specially formulated cold flow additive for biodiesel produced from rapeseed oil and soy oil.

General

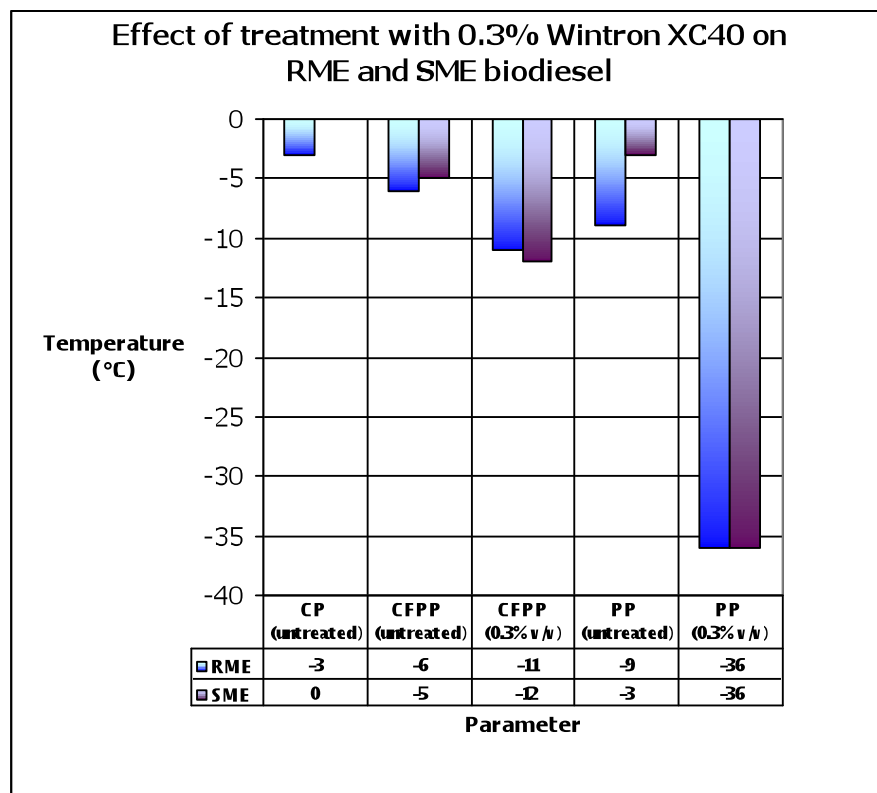
Wintron XC40 is a pour point depressant formulated specifically for biodiesel.

It is a blend of styrene copolymer esters in a toluene base.

It is a viscosity modifier that reduces the tendency of viscosity to increase as the fuel is cooled. This alters the low temperature crystallization process - lowering the temperature at which biodiesel is able to flow and lowering the temperature at which wax crystals become large enough to block the pores of the fuel filter.

Treat rate

Wintron XC40 is formulated to be maximally effective for biodiesels produced from rapeseed oil and soy oil – the feedstocks most commonly encountered in Europe and North America. Optimal treat rate for these types of biodiesel is typically 0.3% by volume, although there can be some variation. Wintron XC40 can also be used for biodiesel produced from used cooking oil and results are generally very good. Wintron XC40 is not effective for biodiesel produced from highly saturated feedstock oils such as tallow and palm oil. As the exact composition of biodiesel can vary so can the optimum treat rate. Users must determine the required treat rate and this information should be used as a guide only.



RME – Rapeseed methyl ester – biodiesel produced from rapeseed oil (EN 14214)

SME – Soy methyl ester – biodiesel produced from soy bean oil (ASTM D 6751)

CP – cloud point – temperature at which haziness is observed (ASTM D 2500)

CFPP – cold filter plugging point (EN 116, ASTM D 6371, IP309)

PP – pour point – lowest temperature at which liquid can be freely poured (ASTM D 97, IP 15, ISO 3016)



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Use

Wintron XC40 is mixed with finished biodiesel. The biodiesel should be warm, and must be at least 5°C above the cloud point of the fuel (i.e. it should appear clear)

Cold filtration

The cold flow characteristics can be further improved by cold filtration of the fuel after it has been mixed with Wintron XC40. This method will reduce the CP and further reduce CFPP.

- (1) Optimum treat rate with Wintron XC40 is determined to maximally reduce pour point of biodiesel
- (2) Warm biodiesel is mixed with Wintron XC40
- (3) The mixture is allowed to cool to below the cloud point – the fuel must still be able to flow
- (4) Filtration to 1 micron

Safety

Contains toluene : Keep away from heat and ignition sources. May be harmful if swallowed. Avoid breathing vapour. Use with adequate ventilation. Avoid contact with eyes, skin, and clothes. Wash thoroughly after handling. Keep container closed. (Toluene : CAS# 108-88-3)

FIRST AID: SKIN: Remove contaminated clothing. Wash exposed area with soap and water. If symptoms persist, seek medical attention EYES: Wash eyes with plenty of water for at least 15 minutes, lifting lids occasionally. Seek Medical Aid. INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen INGESTION: Give several glasses of milk or water. Vomiting may occur spontaneously, but DO NOT INDUCE! Never give anything by mouth to an unconscious person.
FIRE FIGHTING MEASURES: Fire Extinguisher Type: Carbon Dioxide, dry chemical powder or appropriate foam Fire/Explosion Hazards: Vapour may travel considerable distance to source of ignition and flash back.
Fire Fighting Procedure: Use water spray to cool fire exposed containers.