



Technical Circular

0199-99-01210/5 EN

This Circular supersedes: 0199-99-01210/4

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DEUTZ engines

- All DEUTZ engines

DEUTZ fuel additives (InSyPro®/StartBoost/FlowBoost)

Alterations

In comparison to TR 0199-99-01210/4, the following changes have been made:

- Introduction
 - DEUTZ StartBoost
 - DEUTZ FlowBoost

General

Due to the increased emissions and performance requirements of modern engines, it is crucial that suitable fuels are used in order to ensure proper engine operation. Fuel additives are a fundamental component of fuels. A distinction is made between a basic additive designed to ensure a standard-compliant fuel (for example lubricity additives, cold additives and cetane-value improvers) and performance additives (for example to prevent the accumulation of deposits, corrosion, oxidation).

While special premium fuels are available at petrol stations in many European countries, there are gaps in individual cases, especially when industrial and agricultural engines are used. These gaps are due to the special applications and situations in which the fuels are used.

DEUTZ fuel additives provide you with an appropriate portfolio to improve the performance of your DEUTZ engines for the widest variety of requirements in daily use and to reduce your operating costs.

DEUTZ fuel additives

Safety data sheets for DEUTZ products can be downloaded online.



– Safety data sheets
<http://www.deutz-sdb.com/de/sdb-de.html>

| Designation | Container size | Part number |
|------------------|----------------|-------------|
| DEUTZ InSyPro® | 1 litres | 01017967 |
| | 5 litres | 01017968 |
| DEUTZ StartBoost | 1 litres | 01091262 |
| DEUTZ FlowBoost | 1 litres | 01091260 |

T1: DEUTZ fuel additives



ATTENTION

The DEUTZ fuel additives are approved exclusively for use in DEUTZ engines. Their use is only recommended for the listed applications subject to the above conditions. If you have any queries, please contact our head office. The use of other, unapproved additives may lead to the loss of warranty rights.

DEUTZ InSyPro®

The fuel components, especially biodiesel components, can decompose under the influence of temperature, atmospheric oxygen or due to time. This produces deposits in the injection system during operation, which can cause the injectors and pumps to stick, especially in current Common Rail injection systems. The consequences are ignition failure, black smoke, starting problems and increased fuel consumption.



A1: Change in pure biodiesel in storage at 50 °C. Oxidised fuel components give biodiesel a dark colour.

To avoid these negative influences, DEUTZ AG has developed a 2-in-1 diesel fuel additive specially adapted to DEUTZ engines for modern engines which require fuel of the highest quality, especially if using fuel with a proportion of biodiesel.

“Keep Clean” application type

As a stabiliser, it increases the amount of time for which the diesel can be stored, prevents the accumulation of deposits and guarantees a safe engine start after long periods without use.

- Increase in the oxidation stability of the fuel used when using biogenic fuels (biodiesel (FAME) or plant oils)
- Protection against deposits and sticking
- Extension of the shelf life of these fuels
- Reduction of filter contamination and blockage

“Clean-Up” application type

As a pressure cleaning agent, it dissolves deposits in the injection components and prevents loss of power and increased fuel consumption.

- Cleaning and removal of deposits in injectors, injection pumps and lines
- Normalisation of increased smoke values
- Reduction of fuel consumption with improved engine performance
- Protection against corrosion
- Improvement of poor lubricating properties



Areas of application

The additive is suitable for all internationally approved diesel and biodiesel fuels as well as diesel/biodiesel blends.

The use of the fuel additive DEUTZ Clean-Diesel InSyPro® is approved for the stated dosage for all current DEUTZ engines with and without exhaust gas aftertreatment and in all emission stages.

Tests on injection components in use in the field have revealed that these can be returned to a functioning state in case of problems by treating with "DEUTZ Clean-Diesel InSyPro®" and therefore save cost-intensive replacements.

Machine downtimes are also avoided as well as saving costs. For the above reasons we urgently recommend the use of "DEUTZ Clean - Diesel InSyPro®" when the following conditions are met:

- "Keep Clean" application type
(Preventative protection/diesel purification)
 - Devices which are not put into operation at the OEM or for more than 3 months after
 - Engines which are shut down at the end customer's premises for more than 3 months (e.g. harvesting machinery)
 - Operation with biodiesel (FAME)
 - Operation with pure plant oil
(only applies for DEUTZ Natural Fuel Engine®), see Technical Bulletin 0199-99-01218 for fuels
 - Corrosion protection of engines (see Technical Bulletin 0199-99-01170)
- "Clean-Up" application type
(Shock cleaning)
 - Devices which are operated in regions with poor quality fuel
 - If problems in the injection system (start problems and increased smoke values) are reported, at least one or, better still, two tank fillings should be operated with the additive in the fuel before replacing expensive components

Application instructions



See the safety instructions in the safety data sheet.

Repeated application is recommended in conjunction with lubricating oil changes (usually every 500 OH).

Dosing



ATTENTION

Avoid overdosing.

The stated dosage of the DEUTZ Clean-Diesel InSyPro® fuel additive must be adhered to precisely, as otherwise no optimum effect can be achieved.

For good mixing, first put in the additive and then top up with diesel fuel.

| Preventative protection/diesel purification "Keep Clean" | Shock cleaning "Clean-Up" |
|---|--|
| 1:400 or 1 litres per 400 litres of diesel 0.5 litres per 200 litres of diesel 0.25 litres per 100 litres of diesel | 1:200 or 1 litres per 200 litres of diesel 0.5 litres per 100 litres of diesel 0.25 litres per 50 litres of diesel |

T2: DEUTZ InSyPro® dosage



DEUTZ StartBoost

DEUTZ StartBoost is a powerful fuel additive which ensures the starting capability of equipment after long periods of standstill and significantly improves the storage stability of the fuel. The shelf life of the fuel is supported by stabilisers and its combustibility is increased by a cetane count improver.

Properties

- Increase in start reliability by improving the combustibility
- Increase in the shelf life of the fuel by improving the oxidation and thermal stability
- Protects the tank, fuel lines and filter against the formation of microorganisms (diesel bug)

Areas of application

- Protection of emergency power systems
- Upgrade of locally available, lower fuel qualities

Application instructions



See the safety instructions in the safety data sheet.

The additive may only be used by commercial customers and is subject to the special conditions of the Prohibition of Chemicals Ordinance.

- Storage:
 - frost-free
 - not over 40 °C
 - dry
 - tightly sealed



ATTENTION

DEUTZ StartBoost is not a substitute for highly effective biocides designed to treat contaminated diesel fuel.

Dosing



ATTENTION

Avoid overdosing.

For good mixing, first put in the additive and then top up with diesel fuel.

| Dosing: DEUTZ StartBoost |
|---|
| 1:1000 or 1 litre of DEUTZ StartBoost to 1000 litres of diesel fuel |

T3: Dosing: DEUTZ StartBoost

DEUTZ FlowBoost

DEUTZ FlowBoost is a powerful fuel additive which improves the performance of the fuel at low temperatures by up to -10 °C. Special additives prevent the formation of large paraffin crystals and protect the fuel filters and lines from possible clogging.

Properties

- Allows summer and transition diesel to be used for longer



(Court and company fuel stations)

- Ensures usability via an improved cold start behaviour
- Prevents the fuel lines and filters from clogging

Areas of application

- Use of summer and transition diesel for low outdoor temperatures
- Upgrade of locally available, lower fuel qualities

Application instructions



See the safety instructions in the safety data sheet.

- Storage:
 - dry
 - avoid extreme heat
 - seal opened containers well



ATTENTION

DEUTZ FlowBoost is not a substitute for winter diesel at extremely cold outside temperatures (from -20 °C). Winter and arctic qualities must be used.

Dosing



ATTENTION

Avoid overdosing.

For good mixing, first put in the additive and then top up with diesel fuel.

For subsequent addition, circulate the tank contents while on farm and company petrol stations.

The biodiesel content of the diesel fuel must not exceed 20%.

| Dosing: DEUTZ FlowBoost |
|--|
| 1:1000 or 1 litre of DEUTZ FlowBoost to 1000 litres of diesel fuel |

T4: Dosing: DEUTZ FlowBoost

Contact

If you have questions about any of the topics mentioned here, please contact us using the details given below:

e-mail: lubricants.de@deutz.com

or

DEUTZ Ticket System (DTS): <https://www.dts-deutz.com> (for registered users only)

or

Email: service-kompaktmotoren.de@deutz.com



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