

MOTOREX COOL-X

Ready-to-use coolant for spindle cooling systems

Description

MOTOREX COOL-X is a **ready-to-use** coolant with corrosion protection for high-performance spindles. Its ingredients passivate the various materials and provide long-term protection against corrosion. COOL-X is a very efficient coolant with a specific heat of 4.1 J/g-K, which is virtually the same value as for water (4.187 J/g-K).

Advantages

- ready to use
- very efficient heat removal
- prevents electrochemical corrosion
- effective in protecting aluminium, non-ferrous and ferrous metals from corrosion
- zinc-plated parts are not affected
- low maintenance
- compatibility with plastics typically used in machine construction and with sealing materials has been tested and confirmed

Maintenance

COOL-X must be checked periodically in accordance with the spindle- resp. machine manufacturer's specifications. (see maintenance instruction on page 2).

If COOL-X is to be used in a system that was previously filled with a product from another manufacturer, the cooling system must first be treated with 3% CS-CLEANER for 48 hours of operation before the fluid is changed.

For this, please follow the spindle manufacturer's maintenance instructions.

Application

COOL-X is ready to use: do not add any water. An average operating temperature of 20 – 25°C will provide very effective long-term protection for elastomers. If the coolant is used under optimal operating conditions while proper maintenance has been performed according to the instructions the coolant's service life may be up to 2 years.

Storage

Store MOTOREX COOL-X in the original container at 5 - 35 °C. In general, MOTOREX COOL-X should not be exposed to temperatures below 0 °C. It freezes at a temperature of - 9 °C. If MOTOREX COOL-X is exposed to freezing conditions during transport and freezes, it can be thawed at temperatures of at least + 5 °C. When doing so, make certain that the liquid is completely thawed. After thawing, shake the container well.

The maximum shelf life in the closed original container is 1 year.

Typical technical parameters

Property	Unit	Tested according to	Value
Colour		DIN ISO 2049	fluorescent green
Density at 20 °C	g/ml	ASTM D 4052	1.010
pH value range		DIN 51785	8.0 - 8.7
Solidification point	°C	ASTM D 5950	-9
Application range	°C		4 - 80
Reading value of refractometer	% Brix ¹		*1.9
Water hazard class: WGK1			
Disposal code: VeVA / EWC 120109			

*reading from handheld refractometer 5.8 => actual 11 %

Important information about the use of MOTOREX COOL-X

1. Initial commissioning of a cooling system

Before a cooling system is brought into operation first time, it must be cleaned prior to remove solids and germs. Neglecting this procedure may result in damage of components in the system or may spoil the coolant.

- Flush the circuit thoroughly for approx. 2 hours using a mixture of COOL -X treated with 3% CS-CLEANER.
- Drain the circuit completely.
- Fill the coolant tank with COOL -X, following the filling instructions.

2. Use of the coolant

MOTOREX COOL-X is ready to use. Do not dilute with water.
Fill the coolant container. Observe filling guidelines / fill level.

3. Maintenance / checks

MOTOREX COOL-X is a low-maintenance coolant. We recommend checking the following points on a monthly basis.

- Aspect (appearance)
- Odour
- pH value
- Concentration (**target: 11%** / min. 11% / max.15%)

Adjusting concentration due to evaporation:

If the concentration exceeds the limit values it must be adjusted in steps by adding pure drinking water (acc. to specification below) to meet the target concentration (11%).

- water hardness max. 20°dH (3.6 mmol/l)
- chloride max. 100 ppm
- sulphate max. 100 ppm

4. Changing coolant

Interval between changes:

Under optimal operating and environmental conditions, the coolant can remain in use for a maximum of 2 years.

Procedure when changing:

1. Add 3% CS-CLEANER to the "old" coolant. Continue working as normal for two to three days.
2. Afterwards, empty the system completely and clean it thoroughly. Warning: observe disposal guidelines.
3. If the cooling loop was heavily soiled, we recommend rinsing it with clean drinking water for 10 minutes before the new coolant is added.
4. Refill the system as indicated in Point 2 "Use of the coolant".

5. Transport

In general, MOTOREX COOL-X should not be exposed to temperatures below 0 °C. It freezes at a temperature of - 8 °C. If COOL-X is exposed to freezing conditions during transport and freezes, it can be thawed at temperatures of at least + 5 °C. When doing so, make certain that the liquid is completely thawed. After thawing, shake the container well.

6. General information

The above information reflects the current state of the art. Measurement and production tolerances customary in the branch apply to the key data shown here. Our products undergo constant development. We therefore reserve the right to amend the data contained in this product information at any time without prior notice.

MOTOREX AG accepts no guarantee whatsoever for contaminated circuits, mechanical defects or similar which are attributable to defective maintenance, failure to comply with directives, or the use of materials/substances that are not recommended. The general terms and conditions of sale and delivery (AVLB) of MOTOREX AG LANGENTHAL apply.

