

## MWM Premium Protect

# High-performance corrosion protection ready-mix for MWM gas engines

With increasing engine power and higher levels of efficiency, the thermal loading of engine components adjoining the combustion chamber increases. The main task of the coolant is to discharge the combustion heat from these components (component cooling) and provide it to the customer as useful heat. The coolant is therefore not only responsible for a continuously safe engine operation, but also for efficient use of the plant.

Like lubricating oils, coolants are tested in intensive field tests and approved for use. Based on the long-standing experience of our development engineers, as well as extensive assessment of field experiences of the MWM service organization, the inhibitor technology for MWM Premium Protect has been selected together with a strategic partner.

## MWM Premium Protect

- ✓ Suitable for all MWM gas engines
- ✓ Suitable for all plant configurations (exhaust heat exchanger in the engine circuit or heating circuit)
- ✓ Effective corrosion and cavitation protection through organic inhibitor technology
- ✓ Free of silicate, phosphate, amine, nitrite and boron
- ✓ No hard deposits on components subjected to high thermal loads, such as the cylinder liner
- ✓ Extended exhaust heat exchanger service lives due to low total hardness
- ✓ Simple handling as a ready-mix

MWM Premium Protect has an optimized heat transmission capacity with safe corrosion and cavitation protection for plants on which no antifreeze protection is required.

## Well-matched

MWM Premium Protect is developed for plants on which no antifreeze protection is required. The omission of glycol as an antifreeze protection component maximizes the heat transmission capacity of the coolant. On the plant side, cooling system components can be downsized accordingly. The corrosion and cavitation protection is ensured using organic inhibitors. MWM Premium Protect does not contain any non-organic inhibitors and thus does not form any hard deposits on wetted components, which could affect heat transfer.

In order to ensure reliable protection of the engine, the correct inhibitor concentration of the coolant is par-

ticularly important. Overconcentration poses the risk of damage to wetted components – especially elastomers such as O-rings on the cylinder liner. This results in high repair costs. Too low a concentration of the inhibitor cannot guarantee a sufficient corrosion and cavitation protection. If cooler antifreeze concentrates are used for preparing the coolant on site, the correct chemical composition of the mixing water for the plant configuration must also be considered. Incorrect water composition poses the risk of deposits in the area of the exhaust heat exchanger. These not only reduce the service life of the heat exchanger, but also its efficiency and thus the economic efficiency of the overall plant.

As a ready-mix, MWM Premium Protect always has the correct inhibitor concentration. An incorrect dosage and the associated problems described are thus prevented. Elaborate processing of the engine coolant

on the plant is no longer necessary. The mixing water used is suitable for all plant configurations. During maintenance work, the coolant circuit can be filled with MWM Premium Protect.

Material properties of MWM Premium Protect	
Color	colorless
pH value	8.1
Density	1004 kg/m <sup>3</sup>
Total hardness	<1 °dH
Inhibitor concentration	6 Vol. %
Antifreeze protection up to	no antifreeze protection

Available in	MWM Part Number	
Canister	20 l (new)	1221 8337
Drum	205 l	1221 8230
IBC	1000 l	1221 8231

The focus when selecting the MWM Premium Protect inhibitor technology was on a minimal deposit formation on components subjected to high thermal loads and a maximum heat transmission capacity of the coolant. The contents of MWM Premium Protect are environmentally compatible, in contrast to cooler antifreeze agents, which contain monoethylene glycol (MEG).

MWM Premium Protect is characterized by excellent heat transfer, safe corrosion and cavitation protection and simple handling. The availability and economic efficiency of the plant is increased due to the use of MWM Premium Protect. The product is also suitable for all MWM diesel engines.



Do you have any questions on the topic of corrosion protection ready-mix?

Contact your MWM Service Center or [service@mwm.net](mailto:service@mwm.net).

