

## Grease Bio M WR

### Food grade biodegradable water resistant greases

#### *Description*

Formulated with an environmentally friendly additive package to obtain excellent balance between environmental requirements and lubricating-anticorrosive capacity. Superior sealing capacity and very good resistance to water action, combined with a high adhesion to the mechanism to be lubricated.

Thanks to their biodegradable properties they will have better performances and higher efficiency in further water treatments, whatsoever physical-chemical or biological they might be.

The eventual contamination of soils, cultures, forests, water, will have a low effect on the environment, due to the high biodegrading velocity, specially when compared to the conventional greases.

#### *Benefits*

Grease Bio MO-WR is used for pumps in water treatment plants successfully in a couple of applications:

- Lower bearings of Archimedes' screw. Archimedes' screw is used to raise water from one level to another. It is made of an inclined cylinder that encases a broad-threaded screw.



- Chain lubrication of cleaning bars in bio discs. These discs create a large surface area for natural bacteria required to break down ingredients in the waste water entering the system.



In many water treatment plants a conventional calcium grease is used because of its water resistant properties. In comparison with these greases Grease Bio MO-WR possesses better pumpability, lubricating capacity and outstanding water resistance.

Water treatment plants can be found anywhere near urban and other populated areas. The annual consumption of an average sized water treatment plant will be around 15-20 MT.

#### *Applications*

Should be used wherever the lubricant is an important contaminating factor to the environment and whenever it is possible that uncontrolled lubricant losses pass to the soil or to water. Suitable for the use in:

- Forest machinery
- Public works machinery
- Nautical mechanisms
- Various mechanisms in water treatment plants.
- Water pumping installations
- Mechanisms in contact with water
- Protection of car bodies

*Typical performance data*

	Test method	Bio M WR 0	Bio M WR 2
Thickener, soap type		Calcium	Calcium
Base oil nature		Natural ester	Natural ester
Worked penetration 60 W, 0,1 mm	ASTM D217	355-385	265-295
Dropping point, °C min	ASTM D566	100	120
NLGI consistency class	DIN 51818	0	2
Copper corrosion, 24hr/ 100 °C	ASTM D4048	1b	1b
Water washout @ 40 °C, %	ASTM D1264		1
Flow pressure @ -25 °C, mbar	DIN 51805		1000
4-ball wear test	IP-239		
<ul style="list-style-type: none"> <li>• Welding load, kg</li> <li>• Wear scar diameter 1'/80 kg, mm</li> </ul>		120 0,50	120 0,50
EMCOR corrosion test	DIN 51802		0
Oil separation, 7 days / 40 °C, %	IP-121		3,5
Water washout 3hr / 90 °C	DIN-51807		0
Oxidation stability @ 100 °C, kg/cm <sup>2</sup>	ASTM D972	max. 0,8	max. 0,8
Evaporation loss, 22 hr / 100 °C, weight, %	ASTM D942	max. 0,7	max. 0,7
Biodegradability test, %	CEC-L-33-A-93	90	88,90
Resistance to hydrocarbons		Resists	Resists
Operating temperatures, °C		- 25 - 80	- 25 - 80