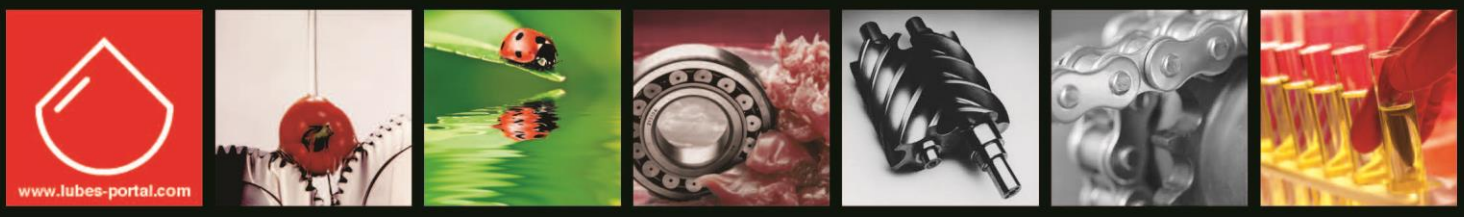


Grease Bio M WR

Food grade biodegradable water resistant greases

Description

Grease Bio M WR is formulated to provide an excellent balance between environmental requirements and lubricating-anticorrosive capacity.
It possesses superior sealing capacity and very good resistance to water action, combined with good adhesion and affinity to metal surfaces. Grease Bio M WR is based on a biodegradable ester and an essentially non-toxic additive package to eliminate the contaminating effect of the grease on the environment. The nature of the base oil with high viscosity and lubricating film will even outperform conventional greases, especially at elevated temperatures.

Grease Bio M 0 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.

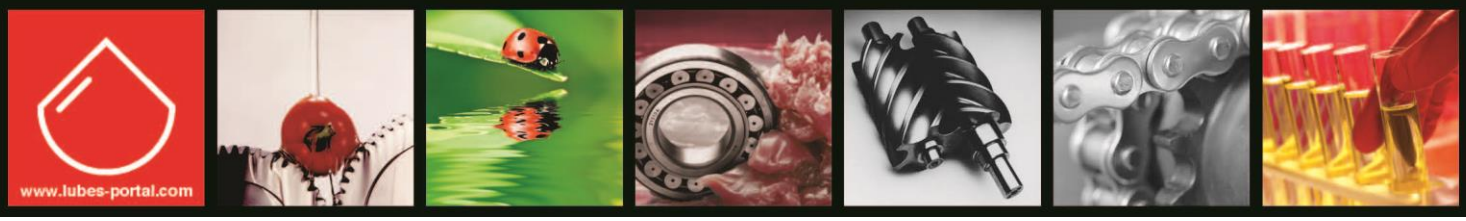
- Chain lubrication of cleaning bars in bio discs. These discs create a large surface area for natural bacteria required to break down ingredients in the waste water entering the system.

In many water treatment plants a conventional calcium grease is used because of its water resistant properties. In comparison with these greases Grease Bio M0-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

Grease Bio M WR can be used for a wide array of applications in an operating temperature range of -20 until 120 ºC. It forms an adhesive film on surfaces that are operating also under moderate and heavy loads. The thickener system and special additives ensure excellent resistance to water, moist and ambient conditions. 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	M WR 0	M WR 2
Thickener, soap type		Calcium	
Base oil nature		Ester	
Base oil viscosity @ 40 °C, cSt		250	
NLGI class	DIN 51818	0	2
Worked penetration 60 W, 0,1 mm	ASTM D217	355-385	265-295
Dropping point, ºC min	ASTM D566	140	140
Copper corrosion, 24hr/100 ºC	ASTM D4048	1b	1b
Water washout @ 40 ºC, %	ASTM D1264	1	1
Flow pressure @ -25 ºC, mbar	DIN 51805	1000	1000
4-ball wear test • Welding load, kg • Wear scar diameter 1'/80 kg, mm	IP-239	 250 0,60	 250 0,60
EMCOR corrosion test	DIN 51802	0	0
Oil separation, 7 days/40 ºC, %	IP-121	3.5	3.5
Water washout 3 hrs/90 ºC	DIN-51807	0	0
Oxidation stability @ 100 ºC, kg/cm^{2,} max	ASTM D972	0,8	0,8
Evaporation loss, 22 hrs/100 ºC, weight, %	ASTM D942	0.7	0.7
Biodegradability test, %	CEC-L-33-A-93	91	91
Service temperatures, ºC		- 20 – 120	- 20 – 120