



# ZAP GREASE EXTREME VG 220

## Description

**ZAP Grease EXTREME** is a high performance heavy duty lubricating grease based on calcium sulfonate complex thickener system and a severely hydro-treated mineral base oil. A unique structure of calcium sulfonate complex thickener provides high dropping point, excellent inherent extreme pressure and anti-wear performance, superior mechanical stability, good rust protection and water spray off protection. This makes it a truly multipurpose grease suitable for a wide range of marine, industrial and automotive applications.

## Application

**ZAP Grease EXTREME** is specially developed for the lubrication in the most severe conditions: under extremely high and shock loads, elevated temperatures and in dirty and wet environments.

It is suitable for heavy duty industrial equipment used in: mining/quarrying, pellet production, cement, steel industry, paper production and other industrial applications. Perfectly adapted to the lubrication of public works machines and other off-road applications including: agriculture and forestry, logging, construction equipment, as well as heavy duty automotive applications.

It is also suitable for use in marine and off-shore applications and for general lubrication of axles, ball joints, universal joints, couplings and bushings.

Operating temperature range:  
from -25 to 180°C  
(temporary up to 200°C).

## Performance Features

- **Inherent Extreme Pressure properties**  
The thickener structure provides ability to withstand heavy and shock loads without failure of the lubricant film. Extends equipment and moving component life under shock-loaded and vibration conditions.
- **Extraordinary Water resistance**  
The thickener structure offers high level of resistance to water wash-out and spray-off. Resistant to sea water.
- **Excellent Mechanical Stability**  
This is particularly important where poor mechanical stability can lead to grease softening and with subsequent loss of lubrication performance and leakage. Mechanical stability kept in the presence of water.
- **Excellent Thermal Stability**  
Does not liquefy until >300°C.
- **High Dropping Point**  
Temperature operating range up to 180°C (temporary up to 200°C) and good low temperature performance.
- **Rust and Corrosion Protection**  
Protects metal parts from rust and corrosion. Extends equipment life.
- **Wide Range of Applications**  
A truly multipurpose grease.

## Technical Specifications

ISO 6743-9: ISO-L-XBFIB 1/2  
DIN 51 502: KP1/2R-25





**ZAP GREASE**  
**EXTREME**  
**VG 220**

### Technical Data

Characteristics	Test Method	Unit	Typical Value
NLGI grade	ASTM D 217	-	1-2
Thickener		-	Calcium Sulfonate Complex
Base Oil Viscosity at 40°C		mm <sup>2</sup> /s	220
Colour	Visual	-	Brown
Appearance	Visual	-	Smooth, Homogenous
Cone Penetration, Worked	ISO 2137	1/10 mm	280-310
Change in consistency	ISO 2137	0,1 mm	<10 (after 10000 cycles)
Operating Temperature Range		°C	-25 - 180
Dropping Point	ISO 6299	°C	>300
Low Temp. Flow Pressure	DIN 51 805	Mbar	Max 1400 at -25°C
Oil Separation, 42h at 40°C, wt%	IP 121		0,5% typical
Dynamic Rust Test, EMCOR	ISO 11007	Rated	0-0 Distilled Water
Water Resistance Test	DIN 51807-1	Rated	1-90 (3 hrs at 90°C)
Water Washout Test	DIN 11009		2% typical (79°C, wt.% loss)
Four-Ball Weld Load	ASTM D2596	kgf	510
Four-Ball Wear Test, Wear Scar	ASTM D2266	mm	0,40 typical

*Above characteristics are mean values given as an information.*

*No warranty expressed or implied is given concerning the accuracy of the information or the suitability of the product*

### Product Data

Stock No. Z-3 / Z-3.1 / Z-3.3

Packages: 400 g Pull-Off Cartridge / 18 kg Keg / 180 kg Drum

24 Cartridges per Box

50 Boxes per Pallet / 22 Kegs per Pallet / 4 Drums per Pallet

Barcode Cartridge / Box: 4752134000031 / 4752134000048

Barcode 18 kg Keg / 180 kg Drum: 4752134000055 / 4752134000062

Shelf Life: 5+ years (from date of manufacture)