



Vorta Grease 31 EP are lubricating greases with a mineral base oil and a special **calcium Sulfonate soap thickener**.

*(Calcium complex)*

They offer good wear protection and a high resistance to mechano-dynamical loads.

These greases are resistant to oxidation and ageing, offer good adhesion properties and protection against tribocorrosion.

Vorta Grease 31 EP offer a high resistance to water, water vapour up to 130 °C, and to many diluted bases and acids, for example

to 10% potassium lye up to 90 °C,  
to 10% sulphuric acid up to 70 °C,  
to 10% nitric acid up to 40 °C and  
to 1% hydrochloric acid up to 40 °C.

*(Tests carried out with V2A stainless steel strips based on DIN 51 807 Pt 1.)*

Water resistance test in an autoclave

Water vapour 130 °C / 220 h

Vorta grease 31 EP shows very good resistance; loss in weight approx. – 0.1%; texture unchanged.

**As compared to this positive result a mineral oil base grease with lithium soap thickener (V40 approx. 520 mm<sup>2</sup>/s) shows a loss in weight of approx. 75% and a severe modification of texture**

## Application

- ◆ Long-term or lifetime lubrication of rolling bearings, e.g.
- ◆ In automotive components  
*(water pump bearings, universal joint bushings).*
- ◆ Wet processing machines in the textile industry  
*(festoon steamers, washing machines)*
- ◆ Spinning machines  
*(top and bottom rollers of drafting frames).*
- ◆ Conveyor systems  
*(loadrollers in wet areas)*
- ◆ Paper machines  
*(especially in wet sections).*
- ◆ Agricultural and construction machinery,
- ◆ Machines in the food processing industry as well as rolling bearings in electric motors, fans, and pumps.
- ◆ Other applications:  
Lubricating and sealing greases for labyrinths and industrial valves and fittings.  
*(vapour valves, spindles and thrust bearings).*

GRADE	TEST METHOD	UNIT	GREASE 31 EP
NLGI Classification			2
Thickener			Calcium Sulfonate
Texture			Tacky
Flash point-base oil	ASTM D92	°C	> 300
Ignition Temperature		°C	> 370
Drop Point	ASTM D556	°C	> 190
Rusting Test	IP 220	Rating	0
Work Penetration	ASTM D217	0.1mm	265-295
60 strokes @ 25 °C			
Timken OK Load	ASTM D2509	1b	60
Operating Temperature	Continuous	°C	150
	Intermittent	°C	200
Speed Factor (n x Dm)		mm x min <sup>-1</sup>	400,000
Flow pressure	DIN 51 805	°C	-15

