# **Technical Data**



## SAPPHIRE® Autolube

### Multi-purpose bearing grease in an automatic lubricator

### **Product Overview**

The ROCOL<sup>®</sup> SAPPHIRE Autolube is an electromechanically operated automatic lubricator containing the high performance SAPPHIRE Advance 2.

SAPPHIRE Advance 2 high performance bearing grease is designed for the effective lubrication and protection of all types of ball, roller and plain bearings.

SAPPHIRE Advance 2 is a truly multi-purpose grease, fortified with PTFE, for an extensive range of applications particularly high speeds such as electric motors and fan bearings.

### **Features and Benefits**

- Excellent extreme temperature resistance ranging from -30°C to +160°C.
- Lithium complex soap technology and EP additives, including PTFE, provides an outstanding high load, EP performance of 560kg that is superior to standard soap thickened lubricants.
- SAPPHIRE Advance 2 is highly resistant to oxidation, providing extended lubrication intervals whilst reducing equipment failure, downtime and lubricant usage.
- Excellent corrosion resistance to protect in humid, damp and even wet conditions.
- Outstanding high speed performance for most applications found in industry.
- PTFE has an extremely low coefficient of friction and its inclusion in SAPPHIRE Advance 2 reduces stick-slip on start-up ensuring a smooth controlled movement.

### **Directions for Storage and Use**

- Prime the mounting point with SAPPHIRE Advance 2 prior to fitting the Autolube.
- Set the correct timing as explained later in this document.
- When the unit is ready to be attached to the lubrication point press the SET button on the top as explained later in this document.
- Screw the unit into an R1/4 (¼ BSP) female fitting attached to the lubrication point immediately.
- The storage temperature should be controlled between +1°C and +40°C.
- Shelf life is 3 years from date of manufacture.

### Typical Applications

SAPPHIRE Advance 2 is designed for all types of ball, roller and plain bearings found in all types of industrial applications. Particularly suitable for high speed bearings and high load conditions.

It is ideal for all industries where a truly versatile high performance lubricant is required such as steelworks, water treatment, quarries, mining, marine, docks, agriculture, construction, textile, brick and tile works and most other industries.

SAPPHIRE Advance 2 excels in applications such as electric motors, oven and refrigeration fans, robots, mechanical handling, palletisers and similar applications where bearings, pins, bushes, slides etc. are subjected to extreme conditions.

### Pack Sizes

Pack Size	Part Code	
Complete Autolube - 120ml	12604	
Refill ONLY – 120ml	12600	

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### SAPPHIRE® Autolube

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Property	Test Method	Result	
Appearance	Visual	Smooth brown grease	
NLGI No.	IP 50 – ASTM D217 2		
Base Type	N/A Severely refined minera		
Base Fluid Viscosity at 40°C	IP71 – ASTM D445	145cSt	
Base Fluid Viscosity at 100°C	IP71 – ASTM D445	15cSt	
Thickener	N/A	Lithium complex soap	
Solids	N/A	PTFE	
Temperature Range	N/A	-30°C to +160°C	
4-Ball Weld Load	IP 239 – ASTM D2596	560kg	
4-Ball Mean Hertz Load	IP 239 – ASTM D2596	93kg	
Water Washout Test	IP 215 – ASTM D1264	<2%	
Copper Corrosion Test	IP 112 – ASTM D130	1b	
Diameter of Autolube complete	N/A	75mm (3 inches)	
Length of Autolube complete	N/A	178mm (7 inches)	

Values quoted above are typical and do not constitute a specification.

### Safety Data Sheets

Safety data sheets are available for download from our website <u>www.rocol.com</u> or may be obtained from your usual ROCOL contact.

The information in this publication is based on our experience and reports from customers. There are many factors outside our control or knowledge which affect the use and performance of our products, for which reason it is given without responsibility. Issue: 5 Date: 02-16

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### **TECHNICAL DATA FOR ROCOL SAPPHIRE AUTOLUBE**

### SETTING THE DISPENSING PERIOD

A simple calculation can aid selection:

Select a factor considering any adverse conditions ie... Dust, water, loading, vibration etc...

SEVERITY OF OPERATING CONDITIONS	FACTOR
MEDIUM	10
HEAVY	15
VERY HEAVY	20

Add the factor to the bore of the bearing (in millimetres) ie. 15 + 25mm bore = 40

Read the lubrication interval from the chart below:

SUM OF BEARING BORE IN mm PLUS	LUBRICATION INTERVAL		
OPERATING CONDITION FACTOR	SAPPHIRE Autolube		
< 50	12 months		
50 – 70	6 months		
70 – 100	3 months		
100 – 135	1 month		
> 135	Consult ROCOL		

### **ADDITIONAL INFORMATION:**

SAPPHIRE settings (months)	1	3	6	12
ml/day dispensed	4.00	1.33	0.67	0.33
Approx. hours between 0.56 ml shots	3.5	10	20	40

**N.B.** A standard grease gun dispenses approx. 1gm (1ml) per shot. (Volume-approx. 1 cm<sup>3</sup>)

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# TECHNICAL DATA FOR ROCOL SAPPHIRE AUTOLUBE SPECIFICATION

- The ROCOL FOODLUBE Autolube is an electromechanical, reusable, automatic lubricator
- Autolube mounting is an R1/4 (¼ BSP) male thread
- Dispensing 0.56 ml each operating cycle
- Capacity 120 ml per cartridge
- Temperature range of the Autolube unit is  $-10^{\circ}$ C to  $+60^{\circ}$ C with a constant discharge pressure
- Pressure build-up to 6 bar allows remote mounting with 6mm bore nylon tubing up to 3 mtr away
- The ROCOL FOODLUBE Autolube is manufactured to IP65 (Not for submerged applications)
- The ROCOL FOODLUBE Autolube is not classified as intrinsically safe
- All around visible LED lights signal functions and errors
- The unit can be switched off
- Drive unit can be reused Replacement cartridges are supplied with new batteries

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