



## LUBRICATING GREASES

# ADDINOL EP MULTI-GRADE GREASE LM 1 EP, LM 2 EP, LM 3 EP

### PRODUCT DESCRIPTION

ADDINOL EP Multi-Grade Grease LM 1 EP, LM 2 EP and LM 3 EP are lithium soap greases on mineral oil basis. They are EP-blended and inhibited against corrosion and ageing.

Temperature range from -30 °C up to +130 °C, for short-term application even up to +140 °C.

### APPLICATION

- Excellent suitability as long-life grease for industry and construction industry
- Suitable for the lubrication of roller and sliding bearings in extended temperature range and at increased bearing loads
- Suitable for automotive wheel bearings operating under increased temperature requirements
- Fit for the long-term and continuous lubrication of roller bearings in electric drives of any kind

### DELIVERY

Delivery possible in all common sizes.

### CHARACTERISTICS

- Inhibited against corrosion and ageing
- Extended temperature range
- Long-life lubrication
- EP-blended
- High oxidation resistance

### SPECIFICATIONS

LM 2 EP meets the requirements according to:

- MAN 283 Li-P 2
- MB-Approval 267.0

According to DIN 51502:

- KP1K-30 for ADDINOL Multi-grade grease LM 1 EP
- KP2K-30 for ADDINOL Multi-grade grease LM 2 EP
- KP3K-30 for ADDINOL Multi-grade grease LM 3 EP

According to ISO 6743:

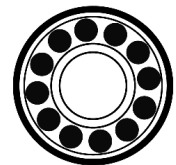
- ISO-L-X CCEB1 for ADDINOL Multi-grade grease LM 1 EP
- ISO-L-X CCEB2 for ADDINOL Multi-grade grease LM 2 EP
- ISO-L-X CCEB3 for ADDINOL Multi-grade grease LM 3 EP

In compliance with NLGI class:

- 1 for ADDINOL Multi-grade grease LM 1 EP
- 2 for ADDINOL Multi-grade grease LM 2 EP
- 3 for ADDINOL Multi-grade grease LM 3 EP

### ADVANTAGES AND BENEFITS

- Long operating time of the lubricant
- Suitable in wide sectors of the industry
- Enhanced performance time of the lubricant
- Applicable at highest pressure loads and heavy operating conditions
- Excellent ageing stability of the lubricant





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## SPECIFICATIONS AND TYPICAL PARAMETERS

Feature	Test condition / unit		LM 1 EP	LM 2 EP	LM 3 EP	Method acc. to
Colour			ecru	yellowish	yellow	visual
Structure			pasty	pasty	pasty	
Thickener			Li-12-hydrostearate	Li-12-hydrostearate	Li-12-hydrostearate	
NLGI class			1	2	3	DIN 51818
According to DIN			KP1K-30	KP2K-30	KP3K-30	DIN 51502
According to ISO			ISO-L-X CCEB1	ISO-L-X CCEB2	ISO-L-X CCEB3	ISO 6743
Application temperature		°C	-30 up to +130	-30 up to +130	-30 up to +130	
Drop point		°C	> 190	> 175	> 185	DIN ISO 2176
Worked penetration	60 DS	0.1 mm	310-340	265-295	220-250	DIN ISO 2137-1
Speed factor	n · d <sub>m</sub>	mm/min	300,000	450,000	450,000	
Behaviour towards water			1-90	1-90	1-90	DIN 51807
Corrosion protection on steel		corr.level	0	0	0	DIN 51802
Corrosivity on copper	100°C/24h	corr.level	1	1	1	DIN 51811
VKA welding load		N	2200	2400	2400	DIN 51350-4
Lubricating grease operating temperature	at 130°C	h	F50 > 100	not specified	F50 > 100	DIN 51821 A/1500/6000-130

### Base oil

Type			mineral oil			
Viscosity	at 40°C	mm <sup>2</sup> /s	195	110	115	DIN 51562-1
Pour point		°C	-39			DIN ISO 3016

### ADDINOL - The Experts for High-Performance Lubricants

We at ADDINOL develop and produce more than 600 high-performance lubricants of the new generation. Among these are automotive lubricants for highest demands and pioneering developments for industrial applications. Our customers all over the world benefit from the high and stable quality of our ADDINOL high-performance lubricants, our know-how and the individual customer advisory service of our competent experts. Our company has world wide activities. ADDINOL high-performance lubricants are distributed by more than 90 international partners.

The data given in this product sheet represent our current level of knowledge and experience. Due to the various specific application they do, however, not discharge the user from his own examination. The information provided herein may not be used to derive a legally binding warranty of specific properties or the suitability for a certain purpose of application. Detailed security-concerning and toxicological data as well as security instructions for each product can be taken from the corresponding Material Safety Data Sheets (MSDS). High-performance lubricants from ADDINOL are under continuous development. Therefore, ADDINOL Lube Oil GmbH keeps the right to change technical data in this product data sheet without notification. In case of doubt, please do not hesitate to contact our customers' advisory service.