



LUBRICATING GREASES

ADDINOL MULTI-GRADE GREASE CS 1 EP, CS 2 EP

PRODUCT DESCRIPTION

ADDINOL Multi-Grade Greases CS 1 EP and CS 2 EP are universal greases based on mineral oils as well as special calcium complex soap as thickener.

Temperature range CS 1 EP: from -30 °C up to +140 °C, for re-lubrication up to +180 °C.

Temperature range CS 2 EP: from -25 °C up to +140 °C.

APPLICATION

- Excellent suitability for centralised lubrication systems in mining and steel industry (conveyor systems, belts, powder metal facilities)
- Highly suited for construction machinery and water pumps
- Suitable as universal grease for the lubrication of motor vehicles
- Multi-grade Grease CS 1 EP is particularly suitable for the long-term lubrication of working rolls in hot rolling mills, paper machines as well as in blast furnaces

SPECIFICATIONS

According to DIN 51502:

- CS 1 EP: KP1-2N-30
- CS 2 EP: KP2N-20

According to ISO 6743:

- CS 1 EP: ISO-L-X CDHB1.5
- CS 2 EP: ISO-L-X BDHB2

In compliance with NLGI class:

- CS 1 EP: NLGI 1-2
- CS 2 EP: NLGI 2

DELIVERY

Delivery preferable in drums (CS 1 EP), 25 kg and 400 g (CS 2 EP) cans.

CHARACTERISTICS

- Universal grease
- High water resistance
- Excellent thermal stability
- Very good wear protection
- Reliable corrosion protection
- Very good feedability

ADVANTAGES AND BENEFITS

- Versatility usage in industry and construction industry
- Direct effect of process water is possible
- Extended temperature range
- Enhanced lifetime of the machine parts
- Long lifetime of the machine parts
- Usable in centralised lubrication systems





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SPECIFICATIONS AND TYPICAL PARAMETERS

Feature	Test condition / unit		CS 1 EP	CS 2 EP	Method acc. to
Colour			brown	brown	visual
Structure			pasty	pasty	
Thickener			Ca complex	Ca complex	
NLGI class			1-2	2	DIN 51818
According to DIN			KP1-2N-30	KP2N-20	DIN 51502
According to ISO			ISO-L-X CDHB1.5	ISO-L-X BDHB2	ISO 6743
Temperature range		°C	-30 up to +140 (+180)	-25 up to +140	
Drop point		°C	≥ 240	> 240	DIN ISO 2176
Worked penetration	0.1 mm		290-330	265-295	DIN ISO 2137
Penetration Difference 60 DH to 100.000 DH	0.1 mm		37	< 70	DIN ISO 2137
Behavior against water, static examination	at 90°C / 3 h		1	1	DIN 51807-1
Four ball machine - OK load		N	2700	3000	DIN 51350-4
Four ball machine - welding strength		N	3200	3200	DIN 51350-4
Degree of copper corrosion	at 100°C / 24 h		1	max. 1	DIN 51811
Degree of corrosion acc. to Emcor			0 and 1	0 and 1	DIN 51802
TIMKEN-examination, OK- Load		lbs	--	> 45	ASTM D 2509
Flow pressure	at -20°C	hPa	≤ 600	< 800	DIN 51805
Friction resistance in pipes	at -20°C and 100g/min	bar/m	≤ 100	< 100	DIN 51816-1

Base oil

Type			mineral oil	mineral oil	
Viscosity	at 40°C	mm ² /s	approx. 150	approx. 150	DIN 51562
	at 100°C	mm ² /s	approx. 13	approx. 13	

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 70 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.