# TECHNICAL SPRAYS





# Weicon Allround Lubricant AL-M

Weicon Allround Lubricants are high performance greases that provide very long lasting lubrication of highly stressed parts. These precision greases have been specially formulated to provide sustained protection against friction and wear and thus extending machinery service life.

Weicon Allround Lubricant AL-M is a specialised grade of high performance grease that exhibits very strong adhesion and high pressure resistance. Manufactured with MoS<sub>2</sub>, AL-M reduces friction and wear and is used on rolling and sliding bearings, joints, levers, sliding guides, spindles, camshafts, spline shafts, springs, open gears and worm gears.

### **Technical Properties**

Abbreviation (DIN 51502)	KF 2 K-20
Consistency Assignment (DIN 51818)	NLGI-Class 2
Basis	Li/Ca-Soap/MoS <sub>2</sub> /Mineral Oil
Colour	Black
VKA-Test (DIN 51350) Welding Load	3,200 N
VKA-Test (DIN 51350) Goods Load	3,000 N
VKA-Test (DIN 51350) Spherical Cap Value	0.5mm
(1 Min / 1000)	0.511111
Speed Identifying Value	250 000
Worked Penetration (DIN ISO 2137)	265-295 1/10mm
Water Resistance (DIN 51807)	1 – 90
Temperature Resistance	-40°C to +120°C
Drop Point (IP 396)	>170°C
Kinematic Viscosity (DIN 51562) +40°C	185mm²/s (approx.)
Kinematic Viscosity (DIN 51562) +100°C	14mm²/s (approx.)
EMCOR-Corrosion Test (DIN 51802)	0/0
Density at +20°C (DIN 51757)	0.92 g/cm <sup>3</sup>

### **Application Selection Table**

	AL-M		AL-M		AL-M
Rolling Bearings	•	Sliding Guides	•	Camshafts	•
Sliding Bearings	•	Linear Guide		Springs	•
Chains		Systems		Open Gears	•
Joints	•	Spindles	•	Worm Gears	•
Levers	•	Spline Shafts	•	Cables	

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Important

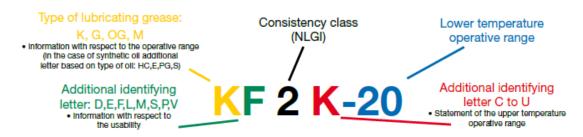
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## **Weicon Allround Lubricant AL-M**



1	2	3
Lubricating grease	Identifying letter	Symbol
Lubricating greases for rolling and sliding bearings and sliding surfaces in ac- cordance with DIN 51825	K <sup>1)</sup>	For lubricating greases based on mineral oil
Lubricating greases for closed gears in accordance with DIN 51826	G	
Lubricating greases for open gears, gearing (adhesive lubricants without bitumen)	OG	
Lubricating greases for sliding bearings and seals?)	М	
Lubricating greases with a synthetic base are classi- fied like the aforementioned greases based on mineral oil in terms of the basic properties.	letters in accordance with	For lubricating greases with a synthetic oil base
	e letters XM for the identifying	

1	2
Consistency identifying number (NLGI classes in accordance with DIN 51818)	Worked penetration determined based on DIN ISO 2137 units <sup>1</sup>
000	445 to 475
00	400 to 430
0	355 to 385
1	310 to 340
2	265 to 295
3	220 to 250
4	175 to 205
5	130 to 160
6	85 to 115 <sup>2)</sup>
1 unit = 0.1mm / 1 Stationa	ry penetration

1	2
Additional identifying number	lower application temperature
-10	-10°C
-20	-20°C
-30	-30°C
-40	~40°C
-50	-50°C
-60	-80°C

1	2
Additional identifying letter	Lubricants
D	For lubricating oils with detergent additives, e.g. hydraulic oil HLPD
E	For lubricating oils, which are used mixed with water, e.g. water mixable cooling lubricants, e.g. SE cooling lubricant
F	For lubricating oils, which are used mixed with water, e.g. water mixable cooling lubricants, e.g. SE cooling lubricant
L	For lubricant oils with active substances to increase the protection against corrosion and/or the aging stability, e.g. lubricant oil DIN 51517 – CL 100
М	For water mixable cooling lubricants with mineral oil contents, e.g. SEM cooling lubricant
s	For water mixable cooling lubricants with a synthetic base, e.g. SES cooling lubricant
Р	For lubricants with active substances to reduce the fric- tion and wear in the mixed friction area and/or to increase the stability under load, e.g. CLP 100 lubricating oil
V <sup>q</sup>	For lubricants, which are diluted with solvents, e.g. DIN 51513-BB-V lubricating oil

<sup>9</sup> The additional identifying letter V sometimes necessitates labelling in accordance the Hazardous Substances Act (GerStoffV).

E	organic ester	
FK	perfluor liquids	
HC	synthetic hydrocarbons	
PH	esters of phosphoric acid	
PG	polyglycol oils	
SI	silicon oils	
Х	others	

1	2	3	
Additional identifying letter	upper application temperature <sup>1)</sup>	Behaviour with water in accordance with DIN 51807 Part 1 Evaluation scale DIN 51807 - 3	
С	+60°C	0-40 or 1-40	
D		2-40 or 3-40	
Е	+80°C	0-40 or 1-40	
F	+80°C	2-40 or 3-40	
G	+100°C	0-90 or 1-90	
Н		2-90 or 3-90	
K	. 40000	0-90 or 1-90	
M	+120°C	2-90 or 3-90	
N	+140°C		
Р	+160°C		
R	+180°C		
S	+200°C	by arrangement	
T	+220°C	Ī	
U	more than +220°C	'	
0			

<sup>9</sup> The "upper application temperature" for permanent lubrication is equal to the highest test temperature when testing in accordance with DIN 51806 part 2 (e.g. draft) and/ or DIN 51821 part 2, if the test runs are passed.

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<sup>0</sup> means no change 1 means slight change 2 means moderate change

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**Basic Oil** 

Polyphenylether Perfluoropolyether Oil

Ester





### **Miscibility with other Greases**

Optimum results with Weicon Allround Lubricant high performance greases will only be achieved through the complete removal of grease residues. However, in practice, such thorough removal is not always possible. In these cases you must first check whether the grade of Allround Lubricant you plan on using is compatible with the grease residues that will remain in the application area. This test must be carried out on the basis of the main components of the grease (basic oil and thickener). Both main components must be miscible (compatible).

### **Miscibility of Basic Oils**

### AL-M (Mineral Oil) Polyalphaolefine ++ Polyglycol Silicone (Metyhl) Silicone (Phenyl)

### **Miscibility of Thickeners**

Thickening Agent	<b>AL-M</b> (Li/Ca Soap)
Ca Soap (Water-Free)	++
Ca Complex Soap	++
Li Complex Soap	++
Al Complex Soap	-
Li Soap	++
Na Soap	-
Gels	++
Ba Complex Soap	++
Polycabarmide	++

### Compatibility with other Sealing Materials and Polymers

ABS – ABS Copolymeride	++
ACM – Acrylate Rubber	++
CA – Cellulose Acetate	++
CR – Chloroprene Rubber	+
CSM – Chlorosulfonated PE Rubber	++
EPDM – Ethylene Propylene	_
Diene Rubber	-
EPS – Expanded Polystyrene	++
FKM – Fluorocaoutchoc	++
LDPE – Low Density Polyethylene	+
NBR – Nitrile Butadiene Rubber	++
NR – Natural Rubber	-
PA – Polyamide	++
PC – Polycarbonate	-

PE – Polyethylene	++
PET – Polythyleneterephthalate	++
POM – Polyoxymethylene	++
PP – Polypropylene	++
PPO – Polyphenylene Oxide	++
PS – Polystyrene	+
PTFE – Polytetrafluoroethylene	++
PUR – Polyurethane	+
DVO Del de lebberto	
PVC – Polyvinylchloride	++
SBR – Styrene Butadiene Rubber	-
	- ++
SBR – Styrene Butadiene Rubber	-

++ Resistant

+ Resistant to a limited extent

- Not Resistant

### **Storage**

Keep in closed original container. Do not store with oxidising agents. Keep container tightly closed and store in a cool and well aired place. Minimum shelf life for Weicon Allround Lubricants is 24 months.

### **Availability**

Weicon Allround Lubricant AL-M is available in the following sizes and forms.

- 400gm Cartridges
- 5kg Buckets

1kg Containers

25kg Buckets

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