

# Low Temperature Conditions

# General Info on Conditions and Typical Applications:

Where: Forestry, marine, mining

Typical applications: Ball bearings, mills, kilns, gears, roller bearings, winches, etc.

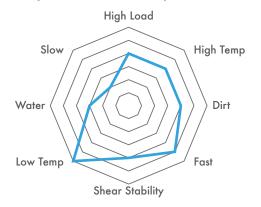
Important product properties: Flow properties

Viscosity and viscosity index (VI)

Low temperature conditions can greatly reduce the flow properties of a lubricating grease, which in turn can result in inadequate lubrication, component damage and unexpected downtime.

Therefore, whether your equipment is exposed to arctic conditions all year round or you just require additional reassurance during Winter months, selecting a grease specifically developed to perform more effectively at lower temperatures will help support operational efficiency and reliability.

### **Key Performance Aspects**

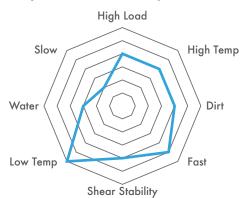


		AXEL Product	Colour	Thickener	NLGI	DP (°C)	BO type	BOV	Solids	T-range (°C)	Approvals
OPTIMAL PERFORMANCE	Slow High Load Water Dirt Low Temp High Shear	Alassca 130 LTM5	-	Alassca	0	>230	Min	45	MoS <sub>2</sub>	-50 to +90	-
		Axellence 632 EPB	<b>S</b>	Li-X	2	>260	PAO	44	-	-55 to +140	-
		Calsullence 630 M5	-	Ca-S-C	0	>260	PAO	46	MoS <sub>2</sub>	-40 to +140	-
		Hycal 760 EPEF	<b>\$</b>	Anh-Ca	0	>140	Ester	460	-	-40 to +100	Ecolabel, SS155470
) (CE	Slow High Temp Water Dirt Low Temp High Shear	Axellence 132 EP Red	<b>*</b>	Li-X	2	>260	Min	60	-	-30 to +140	-
IMPROVED PERFORMANCE		Acinol 621 LT	<b>S</b>	Li	1	>180	PAO	20	-	-50 to +120	-
GOOD PERFORMANCE PER		Calsullence 5415	<b>*</b>	CaSX	1.5	>280	PAO/ Min	120	-	-40 to +140	-
	High Load  Slow  Water  Dirt  Low Temp  High Shear	Acinol 112 EPLT	<b>\$</b>	Li	2	>180	Min	9	-	-50 to +90	-
		Acinol 1400	<b>\$</b>	Li	00	>160	Min	130	-	-35 to +100	-

# Low Temperature Conditions

		AXEL Product	Product Properties	Sample Applications	Sample Industries
OPTIMAL PERFORMANCE	Slow High Load Water Dirt Low Temp High Shear	Alassca 130 LTM5		Extremely loaded mills, kilns, gears, chains, etc. operating at low temperatures	₩ P3.
		Axellence 632 EPB	<b>▼</b>   ••   <b>▼</b>   ••   ••   ••   ••   ••   ••   ••	Heavily loaded spindles, electrical motor or fan bearings operating at high speeds or low temperatures	ଲ <u>୍</u> 0
		Calsullence 630 M5		Extremely loaded mills, kilns, gears, chains, and commercial vehicles operating at low temperatures	<b>€</b> 72.
		Hycal 760 EPEF		Moderately loaded low speed plain bearings, bushes, pins, joints, saw chains and chassis components operating in wet environments with environmental demands	
IMPROVED PERFORMANCE	Slow High Load  Water Dirt  Low Temp  High Shear	Axellence 132 EP Red	<u>                                    </u>	Moderately loaded bearings at high speeds or low temperature	<u>ଲ</u> 0
		Acinol 621 LT	N IL SA	Lightly loaded small bearings and gears in automotive industry operating at high speeds or low temperatures	
		Calsullence 5415		Bearings in alpine industry, highly loaded bearings in wet and cold environments	<b>*</b> 7. <b>∴</b>
GOOD PERFORMANCE	High Load Slow High Temp Dirt Low Temp High Shear	Acinol 112 EPLT	<b>▼</b>  " 1	Moderately loaded spindles and smaller electric or fan motor bearings operating at high speeds or low temperatures	m <sup>3</sup>
		Acinol 1400	<b>₩</b> ¥	Centralized lubrication systems, moderately loaded enclosed gearboxes	<b>⇔</b> [ef]

## **Key Performance Aspects**



#### **Product Properties Key**



Central Lubrication



Environmental



Heavy Loads



High Temperature



Multipurpose



Water Resistant



Corrosion Protection



Extreme Pressure



High Speed



Low Temperature



Special Application

### Sample Industries Key



Agriculture



Cement



Forestry



Marine



Off-Road



Steel





Construction



Industry



Mining



Pulp and Paper