



SPEL LUBRICANTS – RELIABLE LUBRICATION SOLUTIONS FOR INDUSTRY

SPEL is one of India's leading manufacturers of high quality lubricants, greases & specialties. We see ourselves as development for industry with high competence for tailor made solutions. Close cooperation with research institutes, industry partners, & end users as well as the knowledge, skills & experience of over 50 years in the industry contribute the success of our customers.



**Estd
1969**

A brand of
VINAYAK OIL INDUSTRIES

under technical collaboration with
SPECIAL LUBRICANTS



A complete range of Greases & Pastes...

SPEL – your professional partner for special lubricants!

Facts and figures:

Company: SPEL, a brand of the Vinayak Oil Industries

Headquarters: Mumbai

Manufacturing Units: Mumbai, Wada, Murbad

Collaboration: NABL Certified Lab Pune,

Product range: A full range of more than 800 products and 3,000 articles

Certifications: ISO 9001, ISO 14001 (in process), Association with NABL certified Laboratory

References: One of the leading lubricants OEM & Supplier to Indian Government & Defense sector

Since the establishment it's in 1969 in the financial capital of India, SPEL has developed, produced and sold lubricants and related specialties for more than 54 years – for technically demanding industrial applications in virtually all areas and sectors.

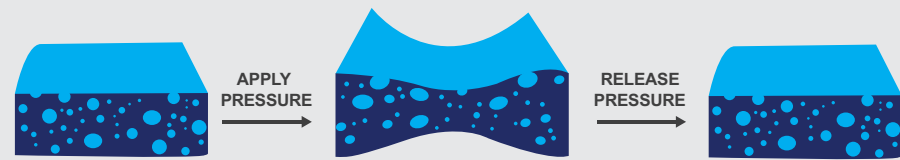
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GREASES

What is a Grease? Greases are the result of dispersing a thickening agent (calcium, lithium, etc.) in a liquid lubricant (mineral oil, PAO, ester, etc.)

GREASE = THICKENER + BASE OIL + ADDITIVE



WHY USE GREASE?

- 1 Doesn't leak out
- 2 Avoids corrosive contaminants to enter
- 3 Can incorporate solids such as graphite, moly, PTFE, etc. in suspension
- 4 Has a much longer service life than liquid lubrication

TYPES OF THICKENERS:

Soap:

- 1) Straight Metal Salts (Lithium/Calcium/Aluminum/Sodium)
- 2) Complex Metal Salts (Lithium Complex, Calcium Complex, Barium Complex, Aluminum Complex)

Non Soap:

- 1) Inorganic Thickener (Clay & Silica)
- 2) Organic Thickener (PTFE & PU)

PROPERTIES OF THICKENER:

TICKENER	WATER RESISTANCE	MECHANICAL STABILITY	HIGH TEMPERATURES	CORROSION RESISTANCE
Lithium	***	*****	***	****
Lithium Calcium	****	*****	**	****
Lithium Complex	***	*****	****	****
Calcium	****	**	**	*
Aluminium	***	*	**	****
Calcium complex	***	***	****	****
Aluminium complex	***	***	****	****
Calcium sulfonate complex	*****	*****	*****	*****
Clay	**	**	****	**

Poor * Low ** Good *** Very good **** Excellent *****

TYPES OF BASE OILS:

- 1 **Mineral:** Paraffinic Napthenic
- 2 **Synthetic:** PAO, PAG, Esters
- 3 **Natural:** Vegetable Oils
- 4 **High Performance:** Silicones, Fluorinated Oils, etc.

PROPERTIES OF BASE OIL :

Base Oil Viscosity	Application
ISO 100	Electric motors and high-speed bearings > 3600 rpm
ISO 150 & 220	Multipurpose grease operating at moderate speeds
ISO 460	High loads and good water resistance
ISO 680	High-speed couplings
ISO 1500	Very low speed, high loads and good water resistance
ISO 3200	High-speed couplings

MULTI-PURPOSE/LONG LIFE GREASES

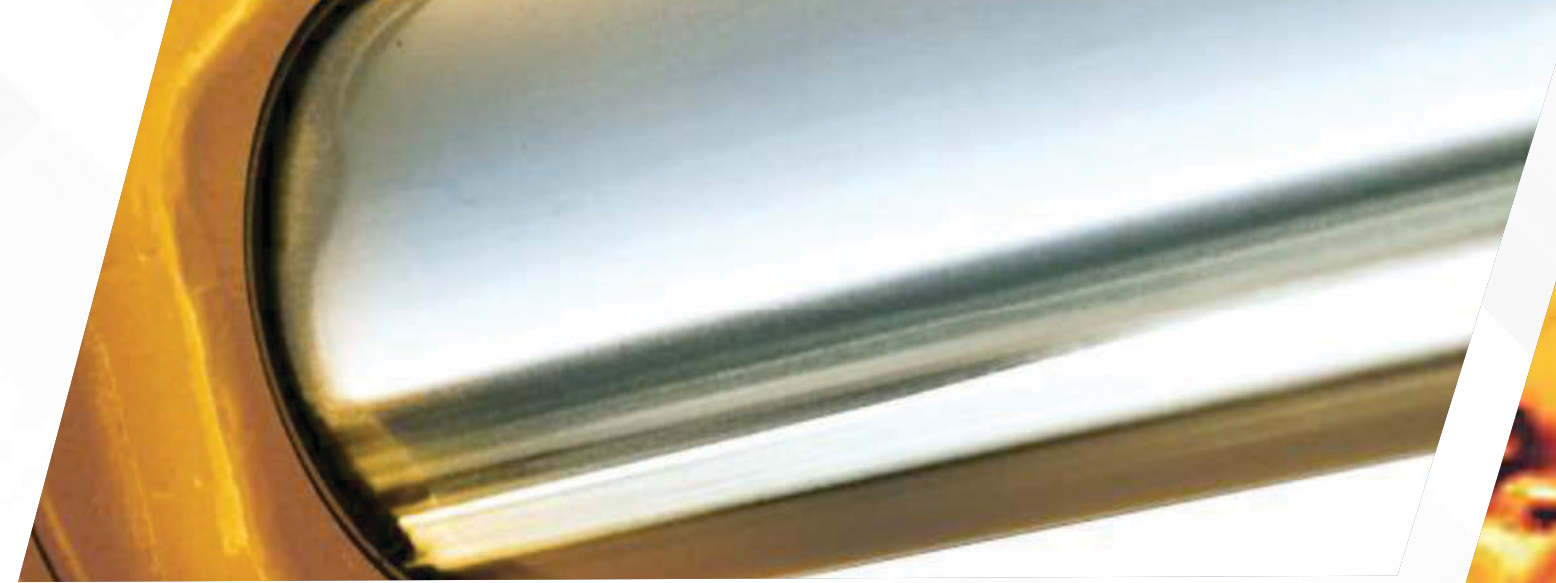
SPEL has designed a range of greases for the lubrication of mechanisms which are not highly demanding and operate at medium to high temperatures, for all types of industries, as well as automotive applications, chassis, wheel bearings, railways, and machinery. It incorporates antioxidant, anticorrosive, and adhesion additives.

Product	Thickener	Base Oil KV@40°C	Drop Point °C	Temp Range °C
Pamex Mp3	Special Complex	150 cSt	155	-15 to 100
Mp3	Lithium	150 cSt	190	-20 to 130
MP LongLife 40,000 Kms	Special Lithium	220 cSt	195	-10 to 130
Litholex 75,000 Kms	Lithium complex	220 cSt	270	-20 to 150
LLX EPP2 BLUE 315 kgs Load	Lithium complex	220 cSt	275	-20 to 180
LLX DURAMAX 1,00,000 Kms	Lithium complex	220 cSt	280	-20 to 180
CSC 500 Kgs Load	Calcium Sulfonate Complex	460 cSt	320	-20 to 250
LICOM	Modified Lithium	150 cSt	175	-20 to 120
SCIPLEX	Special Complex	220 cSt	240	-15 to 150

GREASES FOR PLAIN AND ROLLER BEARINGS

For various demanding industrial applications **SPEL** offers a wide range of lubricating greases for roller and plain bearings. It covers high-performance high temperature and low temperature lubricating greases, heavy-duty greases and different for-life lubricants.

Product	Thickener	Base Oil KV@40°C	Drop Point °C	Temp Range °C
Polur HD 3	Polyurea	460 cSt	260	-20 to 190
Polur 2	Di-urea	220/460 cSt	240	-20 to 180
Alcom 2	Aluminum Complex	220/460 cSt	270	-20 to 170
Barcom 2	Barium Complex	220/460 cSt	230	-20 to 160
CSC	Calcium Sulfonate Complex	220/460 cSt	320	-20 to 250
Litholex 3/2	Lithium complex	220/460 cSt	270	-20 to 150
MP3 HV	Lithium	220/460 cSt	195	-20 to 120
PAMEX 463	Special Complex	220/460 cSt	155	-5 to 100
PAMEX 463 HD	Special Complex	220/460 cSt	175	-5 to 110
LICOM 463	Modified Lithium	220/460 cSt	175	-20 to 110
HT Red 3	Inorganic	220/460 cSt	270	-10 to 150
WB 500	Sodium	150 cSt	180	-20 to 120



EXTREME HIGH TEMPERATURE GREASES

SPEL range of ultra-high temperature greases are commonly used in mechanical & heavy industries. They are mainly designed for high to ultra-high temperature applications in presence of water/steam & exposed to shocks & high vibration levels.

Product	Thickener	Solid Lubricants	Base Oil KV@40°C	Drop Point °C	Temp Range °C
METALICA 550	Proprietary	Moly, Graphite	220/460 cSt	None	-20 to 550
Tefex Red	Proprietary	PTFE	220/460 cSt	250	-20 to 200
Moliplex	Lithium Complex	Moly	460 cSt	270	-20 to 220
Molithium 1st	Lithium	Moly	460 cSt	195	-20 to 220
Molithium 2nd	Lithium	Moly, Graphite	220 cSt	195	-20 to 220
HTM 1st	Inorganic Compound	Moly	460 cSt	None	-20 to 240
HTM 2nd	Inorganic Compound	Moly, Graphite	220 cSt	None	-20 to 240
CSC M2	Calcium Sulfonate Complex	Moly	460 cSt	320	-5 to 250
Metacom EPP2	Special Complex	-----*-----*	220 cSt	270	-10 to 180
Sealguard Slip Seal 1520	Special Complex	Special Solids	680 cSt	270	-10 to 200
Sealguard Slip Seal 2624	Special Complex	Special Solids	680 cSt	270	-10 to 200
Polur HT	Urea Compound	-----*-----*	220/460 cSt	270	-20 to 200

EXTREME LOW TEMPERATURE GREASES

Temperature conditions that are sometimes extreme require lubricants with exceptional properties. **SPEL ELTF low-temperature greases** are formulated from mineral or synthetic oils on metallic soaps, complexes, organic thickeners for lubrication at low temperatures: upto minus 50°C. Particularly suitable for lubrication of equipment such as: aviation and aerospace, railway, mechanical or electrical equipment for motor vehicles, conveyor belts, rollers in cold storage, micro gear reducers, miniature electric motors, robots etc.

Product	Thickener	Base Oil KV@40°C	Drop Point °C	Temp Range °C
ELTF LLX	Lithium Complex	PAO 50 cSt	270	-50 TO 140
ELTF Lithon	Lithium	Synthetic 25 cSt	190	-50 to 120
ELTF	Special Complex	Synthetic 25 cSt	180	-40 to 100
ELTF SN 2041	Polymeric	Silicone 100 cSt	270	-50 to 180

HEAVY DUTY & EXTREME PRESSURE GREASES

For Bearings carrying heavy loads at lower speeds and shock loads eg. large roller element or plain bearings for industry and transport, require special protection against load & vibrations. **SPEL** range of EP greases upto **800 KGS WELD LOAD** with a variety of thickeners providing very wide application temperature range, excellent pumpability, resistance to water & excellent corrosion protection.

Product	Thickener	Base Oil KV@40°C	Drop Point °C	Temp Range °C
CSC Ultra #	Calcium Sulfonate Complex	460/680	320	800
Metacom EPP2	Special Complex	460	270	315
Calcom Ep2	Calcium Complex	220 to 1000	250	250
Alcom Ep2 #	Aluminum Complex	220 to 1000	250	315/400
Litholex EPP2 #	Lithium Complex	460	270	315/400
Hyload EP2 #	Lithium	220 to 1000	190	250/500
Hyload EPL2	Lithium	220	190	250
Pamex HD 400	Special Complex	220 to 1000	160	250/315
Pamex EPL2	Special Complex	220	160	250
Licom EP 2	Modified Lithium	150	175	250/315
Pale EP	Calcium	150	110	250
HTXX 1000 #	Inorganic	1200	None	600

#: Options with solid lubricants like moly, graphite available for special applications.

GREASES FOR CENTRALIZED LUBRICATION SYSTEMS

Centralized grease lubrication systems are widely used in industrial and heavy-duty mobile equipment applications to lubricate multiple points on a machine. Semi fluid to fluid greases are required for such applications where the primary benefit is derived from the continuous application of small amounts of grease resulting in improved equipment life, due to the uniform supply of grease. **SPEL** range of CLS greases include options with & without special EP & solid additives.

Product	Thickener	Base Oil KV@40°C	Property	Temp Range °C
LLX EP 00/000	Lithium Complex	150	-----	-20 to 160
Hyload EP 00/000	Lithium	150	-----	-20 to 120
Licom EP 00/000	Modified Lithium	100 to 220	-----	-20 to 110
Hylub WR 2000 Mox	Special Complex	100	Special Solids	-20 to 130
MOx PD 1000	Special Lithium	100	Special Solids	-20 to 130
Pale EP 00/000	Calcium	50 to 220	-----	-20 to 80

GREASES FOR OPEN GEARS

SPEL products reliably cope with the extremely demanding requirements of gears and open drives in the heavy industry. Our on site technical service ensures correct application and contributes to a reduction in repair costs and downtime. Thanks to reduced consumption savings are also made in terms of lubricant costs.

Product	Thickener	Base Oil KV@40°C	Property	Temp Range °C
Viscolube SMA G5000 800 Kgs Load	Aluminum Complex	5000	Moly, Graphite	-10 to 180
Viscolube SMA OGL 4000 620 Kgs Load	Syntetic	4000	Special Solids	-10 to 150
CRG 400L 1	Lithium	400 to 1000	Graphite	-10 to 140
HT OG	Inorganic	1000	Moly, Graphite	-10 to 140
Caligraph	Calcium	100 to 1000	Graphite	-10 to 80

RAPIDLY BIODEGRADABLE GREASE

Special SPEL Bio Grease formulated from biodegradable oils for applications where it is required to lubricate elements with the chance of leakages or spills, such as the gates of reservoirs, agricultural machinery and forestry works.

Product	Thickener	Base Oil KV@40°C	Drop Point °C	Temp Range °C
Bio Calcom	Calcium Complex	Ester	250	-30 to 150
Bio Anca	Calcium	Rapeseed Oil	150	-10 to 100
Bio Lical	Lithium Calcium	Ester	180	-30 to 120

FOOD GRADE

FoodSPEL regroups a range of premium quality food grade greases based on mineral & synthetic base oils to cover a wide range of applications. Suitable for lubrication of bearings, seals & various assemblies operating in severe conditions with potential risk of incidental contact with food. Along with all the benefits of conventional greases, they are also NSF H1 approved.

Product	Thickener	Base Oil KV@40°C	Drop Point °C	4-Ball Load Kgs	Lisso (+PTFE)
Alusyn 2	Aluminum Complex	PAO	>250	350	Synpol
Alu M2	Aluminum Complex	Medical Grade Oil	250	400	Synth HT
Calicom Syn	Calcium Complex	PAO	240	250	Alcomsyn
Ultra Fluor	PTFE	PFPE	>300	300	CSC Syn (Heavy Duty)
Clear Inor FG	Inorganic	Special	None	400	Synth HTM (+Moly)
CAS M2	Calcium Sulfonate	Medical Grade Oil	320	500	Barcom L2S (+ Special Solids)

SYNTHETIC GREASES

Under extreme service conditions (very low temperatures of the order of -40°C or very high > 200°C), the use of synthetic base oils is necessary to reach performance levels that mineral greases cannot attain. These base oils are very resistant to oxidation and are notably used for lifetime greasing at standard temperatures. Typical applications include: bearings for electric motors, micro-mechanisms, robots, slides, rails, cylindrical, conical roller bearings, furnace rollers, motor vehicle interiors, etc.

Product	Thickener	Base Oil KV@40°C	Drop Point °C	Temp Range °C
Syncom (+PTFE)	Lithium Complex	PAO	30 to 220	-50 to 180
Syncom PG	Lithium Complex	Polyglycol	30 to 320	-40 to 145
Syncom ES	Lithium Complex	Ester	20 to 100	-45 to 150
Syncom Lisso	Lithium Complex	Silicone	100 to 350	-50 to 180
Lisyn	Lithium	PAO	30 to 220	-50 to 120
Lisyn PG	Lithium	Polyglycol	100 to 400	-40 to 120
Lisyn ES	Lithium	Diester	100	-40 to 130
	Lithium	Silicone	100 to 350	-40 to 120
	Polyurea	PAO	400 to 1400	-30 to 180
	Inorganic	Combination	220	-40 to 150
	Aluminum Complex	PAO	460	-40 to 160
	Calcium Sulfonate Complex	PAO/Ester	460	-20 to 200
	Special Complex	PAO	100 to 200	-40 to 150
	Barium Complex	PAO	15 to 460	-40 to 180
Fluor HT	PTFE	PFPE	300 to 800	-30 to 240
PAL Stick-Slip	PTFE	Ester	>1000	-10 to 160
L OX 40	PTFE	Silicone	550	-30 to 200
Heatsyn	Bentonite	Silicone Oil	100	-40 to 150





GREASES FOR PLASTIC LUBRICATION

Plastic machinery parts and components can be a cost-effective alternative to metal components, and proper lubrication can extend the operating life and efficiency of these components. SPEL has arranged a range of products for plastic lubrication and excel in high compatibility with plastics.

WATER RESISTANT GREASES

Lubricating greases are very often in contact with water, in various forms: vapours, emulsions, rain or more generally jets under pressure or baths for cooling installations. SPEL offers water-repellent, hydrophobic greases able to preserve their characteristics even in the presence of high percentages of water. By preventing the water from penetrating bearings, these water-resistant greases protect not only against corrosion but also ensure lubrication without deterioration.

They are particularly suitable for lubrication of equipment such as: submerged axles and articulations, cylindrical roller, plain bearings, corrugated cylinders, extraction screws in tunnel boring machines, drill pipe threads, connectors, tap gaskets, suspension bearings.

Product	Thickener	Base Oil KV@40°C	Drop Point °C	Temp Range °C
CSC Wr2	Calcium Sulfonate Complex	220	320	-10 to 250
Hylub WR 200	Lithium Calcium	100 to 460	170	-20 to 100
Licom WR 2	Modified Lithium	100 to 460	175	-20 to 120
Pamex WR	Special Complex	100 to 220	165	-20 to 100
Litholex Gel	Lithium Complex	100 to 220	270	-20 to 150



ANTI-SEIZE SCREW & ASSEMBLY PASTES

Pastes are important aids in plant engineering and for maintenance. They allow for high functional reliability during assembly and disassembly of screw threaded connections or simple press-fitting of bearings and thus help avoiding costs. Metalica series of SPEL anti-sieze paste offer lubrication & corrosion protection effects also when used under extreme temperature and pressure conditions and aggressive media.

Special Designation: Carefully formulated from a wide range of more than 12 types of solid lubricants including metals, salts, white solids, polymers, micro-ceramics, nano-metals, etc.

Product	Thickener	Components	Temp Range°C
Metalica 1500	Inorganic	Moly, Graphite ++	Upto 1500
Metalica 1400 MSL	Special Complex	Nickel ++	Upto 1400
Metalica 1100	Inorganic	Copper, Moly, Graphite +	Upto 1100
Metalica 1100 MSL	Special Complex	Copper Moly, Graphite +	Upto 1100
Metalica 550	Inorganic	Moly, Graphite +	Upto 550
SynAl 1100	Synthetic	Silver, Aluminum+	Upto 1100
Cera 255 Metal Free	Inorganic	White Solids	Upto 1400

