

# Optimizing Operations. Together.

Industrial Lubricants and Greases Reference Guide



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# An Integrated Strategy – Our Commitment To The Industry

Since the early 1900's, Quaker Houghton has been a major supplier of process fluids. With every transition, we've been there: solving problems, reducing costs, and improving every step of the process - in plants around the world. And now, we're bringing even more to the field. Our investments to expand our specialty lubricants and greases range of products demonstrate our dedication to our customers in realizing their challenges, and providing solutions from beginning to end.

# **Optimizing Operations**

At Quaker Houghton, our chemists, engineers, and industry experts work closely with our customers to determine the right lubricant for the precise needs of each application. As a result, the following are achieved:

- Greater efficiency
- Improved working conditions
- Reduced total cost of ownership

# **Markets Served**



# **AEROSPACE**

- Synthetic, multi-purpose greases
- Extreme speeds, loads and pressures
- Withstand temps. and harsh chemicals



# **FOOD & BEVERAGE**

- Halal
- All products are NSF H-1 or HT1 registered
- · Food-grade lubricants produced: oils and greases
- ISO 21469 certified



# **HEAVY INDUSTRY**

- Lubricants for heavy factory equipment
- Withstand high speed and heavy loads
- Ensure minimal downtime
- Biodegradable options available



# **MILITARY**

- · Sole source, twenty year relationship
- Technology advanced grease
- Wide range of applications
- Recently introduced biodegradable option



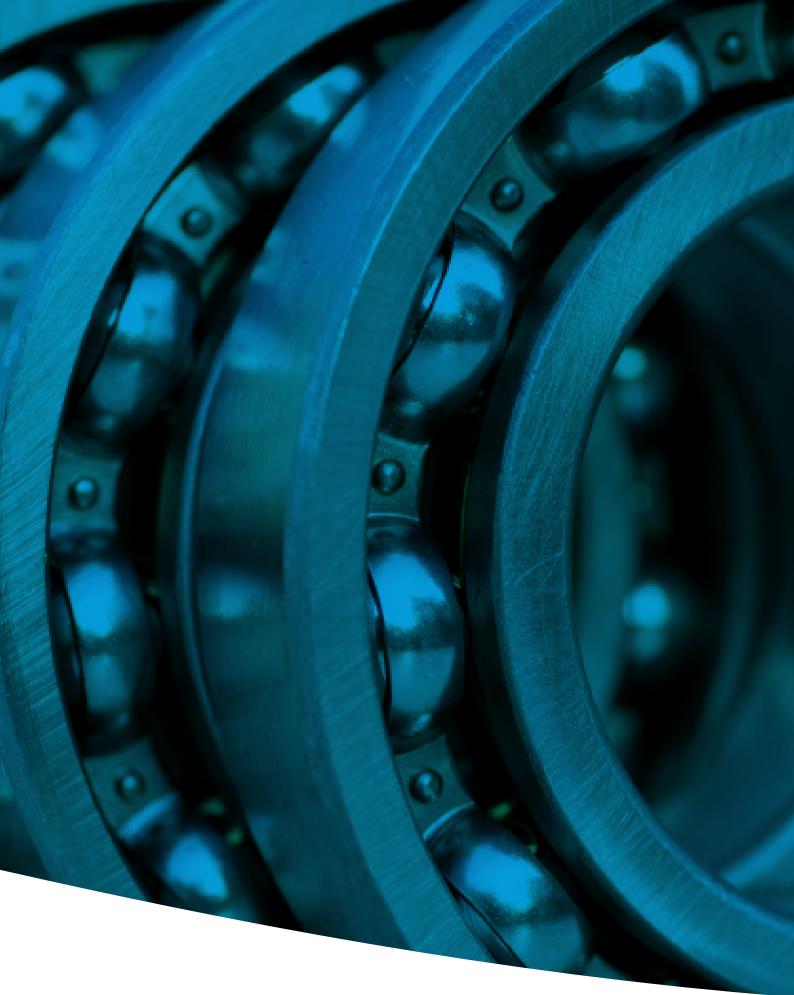
# STFFL

- Grease designed for a longer life span
- Outstanding oxidative and mechanical stability
- Coincide with scheduled oil changes
- Extreme climate formulations



# **TRANSPORTATION**

- Grease designed for a longer life span
- Outstanding oxidative and mechanical stability
- · Heavy duty, off road equipment
- · Coincide with scheduled oil changes
- Extreme climate formulations



**Industrial Lubricants** 

# **GEARS AND GEARBOXES**

# **COMPOUND E**

# ISO VG 68/100/150/220/320/460/680/1000/2200

Range of lubricating oils that depending on their viscosity grade, can be recommended for:

- Industrial gearboxes
- · Rolling contact bearings
- Pump bearings
- · Circulating systems
- Worm gears
- Pinion and girth gear systems

 Geared couplings, rolling bearings and plain bearings operating at moderate speed, requiring fluids with extraordinary anti-wear power and extreme pressure qualities

They have excellent water demulsibility properties (can be removed by purging), anti-corrosion, anti-rust and anti-foam qualities.

# Requirements/Approvals:

They meet the requirements of U.S. Steel-224 and DIN 51517 Part 3-CLP, for the different viscosity grades.

Viscosity grades from ISO 68 to 460 also meet ISO 12925-1 CKD specification.

# **COMPOUND MP**

# ISO VG 150/220/320/460

Range of lubricating oils for:

- · Industrial gearboxes
- Rolling contact bearings
- Pump bearings

 Circulating systems, requiring fluids with extraordinary anti-wear power and extreme pressure characteristics

These oils are formulated with special additives to prevent micro pitting (or gray-staining) phenomenon, passing brilliantly FVA 54/I-IV test.

# Requirements/Approvals:

They meet the requirements of DIN 51517 Part 3-CLP standard and U.S. Steel-224, AGMA 9005 E-02, David Brown S1.53.101 and Cincinnati Milacron P-77, 74, 59 & 35 specifications, depending on the viscosity grade.

# **COMPOUND FG**

# ISO VG 100/150/220/320/460

Range of high performance non-toxic lubricating oils with excellent anti-wear and extreme pressure properties for:

- Industrial gearboxes
- Pump bearings
- Rolling contact bearings
- Circulating systems

Specially designed for gearboxes with spur, helical or worm gears in the food industry, working at normal temperatures and where incidental food contact may occur.

# Requirements/Approvals:

They meet the requirements of DIN 51517 Part 3-CLP standard.

H1 Category Code. NSF Registration No. 145644, 145645, 145646, 145647 and 145648.

Halal certified No IH-648/2.4/NA/19

# **VERKOL GT-7**

# ISO VG 150/220/320/460/680

Range of oils for industrial gears that require an extraordinary extreme pressure power. Formulated with highly refined paraffinic mineral oil and the most modern additives. Excellent results in industrial gears, specially in gearboxes with inverted direction. They possess excellent water separation and anti-foam properties.

# Requirements/Approvals:

Meet the requirements of DIN 51517 Part 3-CLP standard and U.S. Steel-224 and AGMA 9005-E02 specifications.

# **CORVUS EP**

# ISO VG 150/220/320/460/680

Range of PAO type synthetic fluids for gearboxes with high natural viscosity index, excellent friction coefficient, low pour point, very low volatility, good compatibility with elastomers and exceptional resistance to ageing.

They are formulated with ultimate additive technology to provide the highest performance in gearboxes. They are perfectly miscible with mineral oils, whose duration it triples. Specially recommended to extend lubrication intervals and shorten maintenance time.

- Wind turbines: gearmotors (yaw system and blade orientation).
- Paper industry: gears and high temperature bearings (rolls drive, yankee, etc. by splash lubrication or centralized systems).

# Requirements/Approvals:

They comply with DIN 51517 Part 3-CLP for the different viscosity grades.

# **CORVUS FG**

# ISO VG 220/ 320/ 460

Range of high performance PAO type synthetic and non-toxic fluids with excellent anti-wear and extreme pressure properties. Due to the synthetic nature these are long life fluids specially designed for:

- Spur gearboxes
- Helical gears in the food industry, working at medium and high temperatures and where incidental food contact may occur

# Requirements/Approvals:

Meet the requirements of DIN 51517 Part 3-CLP for the different viscosity grades.

H1 Category Code. NSF Registration No. 128124, 128125 & 128126

Halal certified No IH-648/2.4/NA/19.

# **VERKOGEAR OLV**

# ISO VG 220/320

High performance lubricating fluids for incidental food contact formulated with synthetic esters, totally free from mineral oils, MOSH and MOAH. They have been specifically developed for:

- Spur gearboxes
- · Helical gears
- Worm gears in the vegetable oil extraction industry, either from seeds or from pomace

These lubricants can also be used in the lubrication of oil-flooded bearings, pumps, blowers and every sector where total loss lubrication is required.

# Requirements/Approvals:

H1 Category Code. NSF Registration N° 151149, 151150. Halal Certificated No IH-648/2.4/NA/19.

# **CORVUS MP**

# **ISO VG 320**

PAO type synthetic fluid for:

- Industrial gearboxes
- · Rolling contact bearings
- Pump bearings
- Circulating systems

 Requiring fluids with extraordinary anti-wear power and extreme pressure properties

This oil is formulated with special additives to prevent micropitting (or gray-staining) phenomenon, passing brilliantly FVA 54/I-IV test. Due to its synthetic nature it is very thermally stable and can operate at temperatures between -40 and 140°C. It offers high performance and energy savings. Passes compatibility tests with 72 NBR 902, 75 FKM 585 elastomers and Loctite 128068 sealing compound.

Wind turbines: MAIN GEARBOX.

# Requirements/Approvals:

Meets the requirements of DIN 51517 Part 3-CLP-320 standard and U.S. Steel-224, AGMA 9005 E-02, David Brown S1.53.101 and Cincinnati Milacron P-59 specifications.

# **PATELA**

# ISO VG 100/150/220/320/460/680/1000

Range of PAG type synthetic fluids suitable for long-life lubrication of gears. They have very high natural viscosity index (>175), extraordinary friction coefficient, low pour point and very high thermal stability. Specially recommended for gearboxes with high load and temperature requirements where low friction coefficient enhances machine performances and reduces energy consumption. PATELA synthetic fluids are not miscible with mineral oils hence a major clean-up of the system needs to be done before filling it up. These products are compatible with most components used in the manufacture of joints and seals.

# Requirements/Approvals:

They meet the requirements of DIN 51517 Part 3-CLP for the different viscosity grades.

# QUINTOGEAR

# ISO VG 150/320

Synthetic lubricants for industrial gearboxes, rolling contact bearing, pump bearings and circulating systems where it is necessary to use fluids with a superlative anti-wear quality and extreme pressure properties. They do not contain water, mineral oil, metals or halogens in its formulation. They do not react with yellow metals and is compatible with most elastomers used in seals.

# Requirements/Approvals:

Meets the fire resistance requirements as defined in Factory Mutual test method FM6930

# **VERKOL OC**

# 20/40/4 Mo

Special fluids developed for service lubrication of:

- Open gears (girth gear and pinion drives)
- Plain bearings and chains in sugar cane mills and sugar cane alcohol factories

Also recommended for large gear drives of mills and rotary kilns in the cement and mining industry that may require a lubricant of very high viscosity.

#### OC FG - 40

OC FG - 40 is a food-grade lubricant. Special fluids developed for service lubrication of:

- Open gears (girth gear and pinion drives)
- Plain bearings and chains in sugar cane mills and sugar cane alcohol factories where incidental food contact may occur

# Requirements/Approvals:

H1 Category Code. NSF Registration N° 160583. Halal Certificated No IH-648/2.4/NA/19.

# **BIOCOMPOUND**

# ISO VG 220/320

Biodegradable synthetic lubricant fluids for

- Industrial gearboxes,
- Worm gears
- Pinion
- · Girth gear systems
- Elastic couplings
- Rolling contact bearings
- Pump bearings operating at moderate velocities
- Circulating systems
   requiring medium viscosity
   fluids with extraordinary
   anti-wear power and ex treme pressure properties
- Plain bearings and chains in sugar cane mills and sugar cane alcohol factories where incidental food contact may occur

BIOCOMPOUND synthetic fluids are non-toxic products with a biodegradability rate of over 65% according to OECD 301B tests.

# Requirements/Approvals:

EU Ecolabel licence n° ES-NA/027/002

# **CIRCULATING OILS**

# **RODAKOL PM**

# ISO VG 150/220

Products based on mineral oils and specific additives to meet the requirements of the most important manufacturers of high-technology paper machines. It has excellent chemical stability, as well as anti-wear properties, which ensures optimum performance under the special service conditions that are typical of these systems.

RODAKOL range of products are specifically suitable for the lubrication of the bearings at the wet section and at the dry section, respectively, even when designed for simultaneous lubrication of drives.

# Requirements/Approvals:

They meet VOITH VN 108 specification and DIN 51517 Part 2-CL standard and the requirements of METSO and BELOIT, among others.

# **CIRCULACION**

# ISO VG 100/150/220/320

Range of highly refined mineral oils with additives, specially designed for circulating systems with excellent resistance to oxidation at high temperatures (even under steam conditions) and protection against corrosion. They also have excellent demulsibility and anti-foam properties, being inert to yellow metals and sealing materials.

# Requirements/Approvals:

Comply with DIN 51517 Part 3-CLP, for the different viscosity grades.

# **HM CIRCULACION**

# 90 /220 / 460 / 680

Oils specifically designed for circulating systems, especially those found in the steel industry (Morgoil, Mesta, Morgan rolling mills, Danieli, Demag, etc.) or in the paper industry (dryer rolls, etc.) where the fluid used must ensure optimum characteristics of oxidation resistance at high temperatures (even under steam conditions) and corrosion protection. They are based on highly refined mineral oils blended with selected additives that provide excellent demulsibility and foam control. These oils are inert to yellow metals and sealing materials.

# **CIRCULACION SPD**

# **ISO VG 220**

PAO type synthetic fluid for circulating systems with high resistance to oxidation at high temperatures (even under steam conditions), strong protection against corrosion and low residue formation. It has low volatility, excellent anti-friction and hydrolytic stability properties.

Paper industry: Bearings (dryer rolls oil circulation at very high temperature).

# Requirements/Approvals:

It is classified according to the DIN 51502 standard as CL-HC-220 and meets the DIN 51517 Part 2-CL-220 standard.

# **COMPOUND ST**

# **ISO VG 320**

Synthetic fluid for circulating systems with low residue formation, high resistance to oxidation at high temperature (even under steam conditions) and strong protection against corrosion. It has low volatility, excellent anti-friction and hydrolytic stability properties.

# Requirements/Approvals:

Paper industry: BEARINGS (dryer rolls oil circulation with low volume flows). It is classified according to the DIN 51502 standard as CL-E-320.

# HYDRAULICS AND TRANSMISSIONS

# **VESTA HM**

# ISO VG 32/46/68

Anti-wear type hydraulic oils. They provide excellent results in vane and rotary pumps, passing easily the Vickers pump wear test.

# Requirements/Approvals:

They meet DIN 51524 Part 2-HLP, AFNOR NF ISO 11158-HM and ISO 6743/4 L-HM standards and DENISON HF-0 and HF-2 specifications.

The ISO 46 also meets DENISON TP 02100, AFNOR NFE 48690 and AFNOR NFE 48691 filterability test.

# **HYDRAULICS AND TRANSMISSIONS**

# **VESTA HLP**

# ISO VG 10/15/22/32/46/68/100/150

Hydraulic oils with excellent thermal stability, good anti-wear properties, quick air and water separation and highly resistant to oxidation, corrosion, rust and foaming. Ashless type hydraulic oil with good filterability.

# Requirements/Approvals:

Recommended for hydraulic systems with minimum tolerances and high precision of their elements. Meet DIN 51524 Part 2-HLP, AFNOR NF ISO 11158-HM and ISO 6743/4 L-HM standards.

Approvals: MANNESMANN REXROTH

# **VESTA HLP - SF**

# ISO VG 32/46/68

Hydraulic oils with excellent thermal stability, good anti-wear properties, quick air and water separation and highly resistant to oxidation, corrosion, rust and foaming. Ashless type hydraulic oil with a filtration grade according to ISO 4406 of 16/14/11 (ISO 32) and 17/15/12 (ISO 46 & 68) maximum. Recommended for hydraulic systems with minimum tolerances and high precision of their elements.

# Requirements/Approvals:

Meet DIN 51524 Part 2-HLP, AFNOR NF ISO 11158-HM and ISO 6743/4 L-HM standards.

# **VESTA HD HLP**

# ISO VG 46/68

Hydraulic oils based on new specially selected highly refined paraffinic mineral oil with excellent thermal stability and a high additive level against oxidation, corrosion and rust. It also contains anti-foam additives and high capacity to separate from air and water. They are inert against sealing materials normally used in joints, hoses, connections, etc.

# Requirements/Approvals:

They meet Bosch Rexroth RDE 90245 HLP, ASTM D-6158 HM, DIN 51524 Part 2 HLP, Fives Cincinnati P-69 and 70, GM LS2 Antiwear Hydraulic Oil, AFNOR NF ISO 11158-HM, ISO 6743/4 L-HM, Parker Denison HF-0/HF-1/HF-2, Swedish Standard SS 155434:2015 and U.S. Steel 126 specifications.

# **VESTA HMV**

# ISO VG 46/68

Hydraulic oils with very high viscosity index, excellent thermal stability and a high additive level against oxidation, corrosion and rust. Recommended for all type of machinery in sectors such as agriculture, construction and quarries.

# Requirements/Approvals:

Meet the requirements of DIN 51524 Part 3-HVLP, ISO 6743/4 L-HV and AFNOR NF ISO 11158-HV standards.

# **VESTA HV**

# ISO VG 22/32/46/68/100

Range of hydraulic oils with high viscosity index, excellent thermal stability, good anti-wear properties, quick air and water separation and highly resistant to oxidation, corrosion, rust and foaming. Recommended for hydraulic systems of excavators, concrete pumps, rollers, pavers and in all types of industries where there might be sudden temperature changes and specifically for the following brands: SCHWING, PUTZMEISTER, YUMBO, POCLAIN, KUBOTA, DRESSER, ATLAS, MESSERSI, DERRUPE, EUCLID, LEBRERO, etc.

ISO 22 and ISO 32 are recommended for hydraulic systems of solar trackers (azimuthal rotation system by hydraulic system).

# Requirements/Approvals:

Meet the following standards and specifications: DIN 51524 Part 3-HVLP, ISO 6743/4 L-HV, AFNOR NF ISO 11158-HV and DENISON HF-0. Approvals: MANNESMANN REXROTH (for ISO VG 32/46/68).

# **VESTA HV - SF**

# ISO VG 32/46

Hydraulic oils with high viscosity index, excellent thermal stability, good anti-wear properties, quick air and water separation and highly resistant to oxidation, corrosion, rust and foaming. Theses fluids are filtered to ensure a filtration grade according to ISO 4406 of 17/15/12 maximum. Recommended for hydraulic systems in all types of industries where there might be sudden temperature changes and where the tolerances are minimal to ensure accuracy of the elements.

# Requirements/Approvals:

They meet the following standards and specifications: DIN 51524 Part 3-HVLP, ISO 6743/4 L-HV, AFNOR NF ISO 11158-HV and DENISON HF-0.

# **VESTA FG**

# ISO VG 32/46/68

Hydraulic fluids formulated with medicinal white oils and anti-oxidant, anti-corrosion and anti-wear additives, approved by the FDA. Their main use is as a hydraulic fluid and in oleo-dynamic drives in systems under risk of food contamination in case of leakage. They can also be used for general lubrication.

# Requirements/Approvals:

Meet DIN 51524 Part 2-HLP, AFNOR NF ISO 11158-HM and ISO-HM 6743/4 L-HM standards.

H1 Category Code. NSF Registration No. 128127, 128128 & 128129.

Halal certified No IH-648/2.4/NA/19.

# **VESTA OLV**

#### ISO VG 46/68

Hydraulic fluids for incidental food contact formulated with vegetable oils, totally free from mineral oils, MOSH and MOAH. Specifically developed for hydraulic systems in vegetable oil extraction industry, either from seeds or from pomace. Recommended for use in hydraulic systems running over vacuum pumps for carrying pomace, "alpeorujo" (olive oil mill waste products) or olive mass through pipes and hydraulic systems in mechanical vibrating olive harvesters or dumpers. Likewise, it can be used in any hydraulic system requiring oils with these viscosities or where non-toxic and environmentally friendly lubricants are needed.

# Requirements/Approvals:

H1 Category Code. NSF Registration N° 151142, 142816 Halal certified No IH-648/2.4/NA/19.

# **VESTA OLV 46 LT**

# ISO VG 46

Hydraulic fluid for incidental food contact formulated with vegetable oils and synthetic esters, totally free from mineral oils, MOSH and MOAH. It has been specifically developed for hydraulic systems in the vegetable oil extraction industry, either from seeds or from pomace. Recommended for use in hydraulic systems running over vacuum pumps for carrying pomace, "alpeorujo" (olive oil mill waste products) or olive mass through pipes and hydraulic systems in recollection and transport machinery working at low temperatures (the minimum recommended use temperature is -10 °C).

# Requirements/Approvals:

H1 Category Code. NSF Registration No. 147139. Halal certified No IH-648/2.4/NS/19.

# **VESTA TV**

# ISO VG 46

Transmission fluid of high stability to degradation, excellent resistance to oxidation and corrosion. It prevents the formation of deposits, even at very high temperatures. Specially recommended for automatic transmissions that require a GM DEXRON-II D quality level but with a higher viscosity.

# Requirements/Approvals:

It satisfies DIN 51524 Part 3-HVLP standard excluding water separation.

# **BIOVESTA**

# ISO VG 22/46/68

Biodegradable synthetic hydraulic fluids with an exceptional thermal resistance, suitable for application in power transmission systems of machinery in sectors that need to be environmentally friendly, such as agriculture, forestry, construction, water treatment, power stations, etc. These fluids are non-toxic products with a biodegradability rate of over 80% according to OECD 301B Tests. They comply with the requirements of ISO 15380 standard.

# Requirements/Approvals:

EU Ecolabel licence n° ES-NA/027/002 (for the ISO VG 46/68)

# **VESTA H-LPD**

# ISO VG 32/46/68

Anti-wear type hydraulic fluids, based on highly refined paraffinic mineral oil, with excellent thermal stability, high capacity to separate from air and protective properties against oxidation, corrosion, rust and foam. They are inert to sealing materials (joints, hoses, etc.).

# Requirements/Approvals:

They satisfy MB DBL 6721 specification and also DIN 51524 Part 2-HLP and ISO 6743/4 L-HM standards, with the exception of the emulsion test in the last two cases.

# **VESTA HVS**

# **ISO VG 15**

Hydraulic fluid based on a mixture of synthetic fluids and highly refined paraffinic mineral oil, with highly shear stable polymers, that confers it a very high viscosity index, specially indicated for working conditions where there might foresee a wide range of temperatures in the same circuit.

# Requirements/Approvals:

Meets the requirements of the following standards and specifications: DIN 51524 Part 3-HVLP, ISO 6743/4 L-HV, AFNOR NF ISO 11158-HV, Denison HF-0 and HF-2, being compatible with any fluid complying with such standards.

# **HYDRAULICS AND TRANSMISSIONS**

# **SPINDLE OILS**

# **VESTA HG**

# ISO VG 46/68

Mixed fluids for power transmission and slideways lubrication systems based on very thermally stable highly refined paraffinic mineral oil (satisfying Cincinnati Milacron thermal stability test). They are highly resistant to oxidation, corrosion, rust and foaming and has good air separation properties. They are inert to sealing materials (joints, hoses, etc.).

# Requirements/Approvals:

Meet Cincinnati Milacron P, Creusot Loire BSG, Siderurgie Francaise FT-172/2 and DIN 51517 Part 3-CLP specifications.

# **VERKOL V**

# ISO VG 3/5/7/10

Light, transparent and slightly colored oils, specially formulated to satisfy the lubrication requirements of precision mechanisms and spins working at very high speeds, screw spindles and heads of machine tools. They are based on a balanced mixture of highly refined paraffinic oils, of very low viscosity that gives the product very remarkable air separation and anti-foaming properties. They are formulated with special additives to protect against oxidation, corrosion and rust, that also provide excellent anti-wear, polar and anti-friction properties.

# **SLIDEWAYS**

# **GUIAS**

# ISO VG 32/68/100/150/220

Range of special oils to lubricate horizontal and vertical slideways of machine tools. Specifically formulated to reduce the friction coefficient, avoiding "stick-slip" phenomena. Their anti-wear properties and their content of polar, anti-oxidation and anti-corrosion additives, make them suitable for use in circulating systems and for the lubrication of bearings.

# Requirements/Approvals:

Meets DIN 51502 CGLP requirements.

# **GUIAS LTF**

# ISO VG 68/100/220

Range of oils specially suitable for the lubrication of both horizontal and vertical slideways, based on highly refined paraffinic mineral oil, with extraordinary adhesivity properties, which prevents dripping and splattering, and featuring an excellent metal affinity and water repellent properties.

# **TURBINES**

# **TURBINAS**

# ISO VG 32/46/68

Range of oils formulated with top quality refined mineral base stocks and specific additives to comply with the requirements of the most important turbine manufacturers. They provide oxidation stability for long oil life and reduced maintenance with low formation of residues. They also have excellent anti-rust and anti-wear properties that ensure the protection of the lubricated parts.

# Requirements/Approvals:

Depending on the viscosity grade, these oils meet, amongst others, the requirements of the following standards and specifications: ISO 6743-5/L-TSA, DIN 51524 Part 1-HL, DIN 51517 Part 2-CL, DIN 51515 Part 1-L TD, ASTM D-4304, MIL-L-17672 D, CINCINNATI MILACRON P-38, P-54, AFNOR NFE 48603 HL, U.S. Steel 120, Siemens TLV 9013 04/01, General Electric GEK-32568 A/C and GEK-32568f, Brown Boveri HTGD 90117, British Standard BS-489, CEGB Standard 207001, Solar Turbines ES 9-224.

# **TURBINAS CC**

# ISO VG 32/46/68

Range of oils formulated with top quality hydrotreated mineral base stocks and specific additives to comply with the requirements of the most important turbine manufacturers. They provide oxidation stability for long oil life and reduced maintenance with low formation of residues. They also have excellent anti-rust and anti-wear properties that ensure the protection of the lubricated parts.

# Requirements/Approvals:

Depending on the viscosity grade, these oils meet, amongst others, the requirements of the following standards and specifications:

DIN 51524 Part 1 HL, DIN 51517 Part 2 CL, DIN 51515 Part 1 L-TD, DIN 51515 Part 2 L-TG, ISO 8068, AFNOR NF E 48-603 HL, BS 489, GEK 32568 A/C, MIL-L-17672 D, Brown Boveri HTGD 90117, U.S.Steel 120, Westinghouse Electric Corp., Turbine Oil Spec.

# **COMPRESSORS**

# **NAVA**

# ISO VG 68/100

Lubricants for air compressors based on naphthenic oil, formulated with additives to resist oxidation and without components that can leave residues or produce ashes. Because of their mild detergency, they will not only prevent from carbon deposit formation on valves but also will keep heat exchangers, air-receivers and pulse absorbers clean. Their high autoignition point enhances the security against fire and explosions hazards.

# Requirements/Approvals:

They satisfy DIN 51506/VDL and ISO-6743-L-DAB.C88:C93 standards.

# **NAVAPAR**

# ISO VG 32/46/68/100/150

Range of lubricants specially recommended for vane compressors with high operating temperatures, cylinders of reciprocating compressors, screw compressors and vacuum pumps. They are recommended for most models of ATLAS COPCO, INGERSOLL-RAND, MACO, SAMUR and COMPAIR HOLMAN compressors where required an ISO VG 100 mineral oil.

# Requirements/Approvals:

They comply with DIN 51506/VDL and ISO-6743-L-DAB standards.

# **NAVAPAR HM**

# **ISO VG 150**

Lubricants specially recommended for vane compressors with high operating temperatures, cylinders of reciprocating compressors and vacuum pumps, where the manufacturers stipulate the use of high viscosity fluids, but mainly for hyper compressor gear casings and cylinders, such as the ones of BORSIG, HALBERG, SULZER-BURCKHARDT and NUOVO-PIGNONE.

# Requirements/Approvals:

The NAVAPAR HM ISO VG 150 comply with DIN 51506/VDL e ISO-6743-L-DAB.

Approvals: SULZER-BURCKHARDT.

# **NAVASYNT**

# ISO VG 32/46/68

Range of synthetic fluids for screw and vane compressors with high operating temperatures. Due to their synthetic nature they extend lubrication intervals, reducing maintenance costs. Compatible with mineral oils.

They are recommended for most SAMUR, WORTHINGTON, ATLAS COPCO, INGERSOLL-RAND and COMPAIR HOLMAN compressors where a synthetic fluid is required.

# Requirements/Approvals:

They comply with DIN 51506/VDL and ISO-6743-L-DAB/DAJ.

# **NAVASYNT LT**

# **ISO VG 68**

Synthetic lubricant for refrigeration compressors using  $CO_2$  (R-744) and ammonia (R-717). Suitable to work at very low temperatures (up to -50 °C).

Designed for lubricating industrial refrigeration of rotary and reciprocating compressors and turbo compressors.

# **NAVASYNT FG**

# ISO VG 46/100

Synthetic nontoxic lubricants for rotary air compressors, formulated with additives to resist wear, oxidation, corrosion, rust and foam.

The ISO VG 46 oil is recommended for vane rotary compressors and allows oil changes every 6000 hours, while in screw compressors (lubricated or immersed) oil is changed every 8000 hours.

The ISO VG 100 oil is recommended for gearboxes that need this viscosity grade, vacuum pumps, variable speed drives, oil immersed bearings in pumps and fans, blowers and, overall, every food industry related mechanism where a superior oxidation and aging resistant fluid is advisable.

# Requirements/Approvals:

They comply with DIN 51506 VD-L and ISO-6743-L-DAB/DAJ-100 standards.

H1 Category Code. NSF Registration No. 147138 & 128140. Halal certified No IH-648/2.4/NA/19.

# **HEAT TRANSFER OILS**

# **TERMAL - 320**

# **ISO VG 32**

Fluid formulated with highly refined paraffinic base oil, strengthened by high temperature specific oxidation delaying additives, which gives it a wide range of working temperatures (from -15 to 300°C). It can be used as thermal fluid in a closed heat transfer systems, or in up and down heating-cooling cycles.

# Requirements/Approvals:

It meets UNE 9-310-92 standard, for maximum temperatures of 300°C.

# **TERMAL FG - 32**

# ISO VG 32

Special fluid for heat transfer units suitable for use where an incidental contact between the food and the lubricant may occur. It is based on white medicinal oils, without unsaturated components, that satisfies the purity and ultraviolet ray absorption requirements of the USP, BP, DAB and CODEX Pharmacopoeias. It is strengthened by high temperature specific oxidation delaying additives, approved by the Food & Drug Administration (U.S.A.), which gives it a wide range of working temperatures (from -15 to 300°C). It can be used as a thermal fluid in closed heat transfer systems, or in up and down heating-cooling cycles in systems that comply with UNE 9-310-92 standard, for maximum temperatures of 300°C.

# Requirements/Approvals:

HT1 Category Code. NSF Registration No 158532. Halal certified No IH-648/2.4/NA/19

# **INSULATING OILS**

# **VERKOVOLT - A**

# ISO VG 10

Light, non-colored, transparent and shiny fluid specific for transformers, with excellent properties, which are maintained over many years of service. It is based on a naphthenic, non-inhibited and highly refined mineral oil. It has been adequately treated and later on dehumidified, in order to assure the perfect insulation and refrigeration of systems during long periods, due to its resistance to dielectric impulses, low temperature properties and extraordinary oxidation stability. This product does not contain PCB's according to the current legislation.

# Requirements/Approvals:

Satisfies the following specification: IEC 60296 (03) General Specification.

# **CHAIN OILS**

# SYNKOL - 100 Mo

#### **ISO VG 100**

Synthetic fluid with high thermal stability, containing emergency solid lubricants, suitable for conveyor chains operating at high temperatures. It can be easily applied by oil bath, drip lubrication or sprayed.

# **SYNKOL**

#### 50/150/250/320/4000

Range of synthetic fluids with high thermal stability, suitable for conveyor chains operating at high temperatures. They provide an excellent protection against oxidation and corrosion at high temperatures, and very good anti-wear and anti-friction properties. Depending on the viscosity, they can be applied manually by drip lubrication, with a brush or through certain automatic systems. Recommended for use in all types of chains and conveyor systems, in a wide variety of industries, such as steel and textile industries, wood and fiber board manufacturing industries, printing plants, dryers and, in general, for most types of ovens.

# **COGENERATION**

# **VERKOGAS SAE 40**

Oil specially developed for use in naturally aspirated and turbocharged engines, powered by natural gas, biogas, methane, propane or carbon monoxide. Mostly recommended for engines whose service temperature conditions are not subject to dramatic fluctuations. May be used both in two-stroke and four-stroke engines. Inhibited against corrosion, oxidation and nitration, as well as the formation of foam, providing (considering its suitable detergency and dispersancy level), longer valve-life, avoiding stiffening of segments and pearly of the spark plug, therefore increasing the intervals between oil changes.

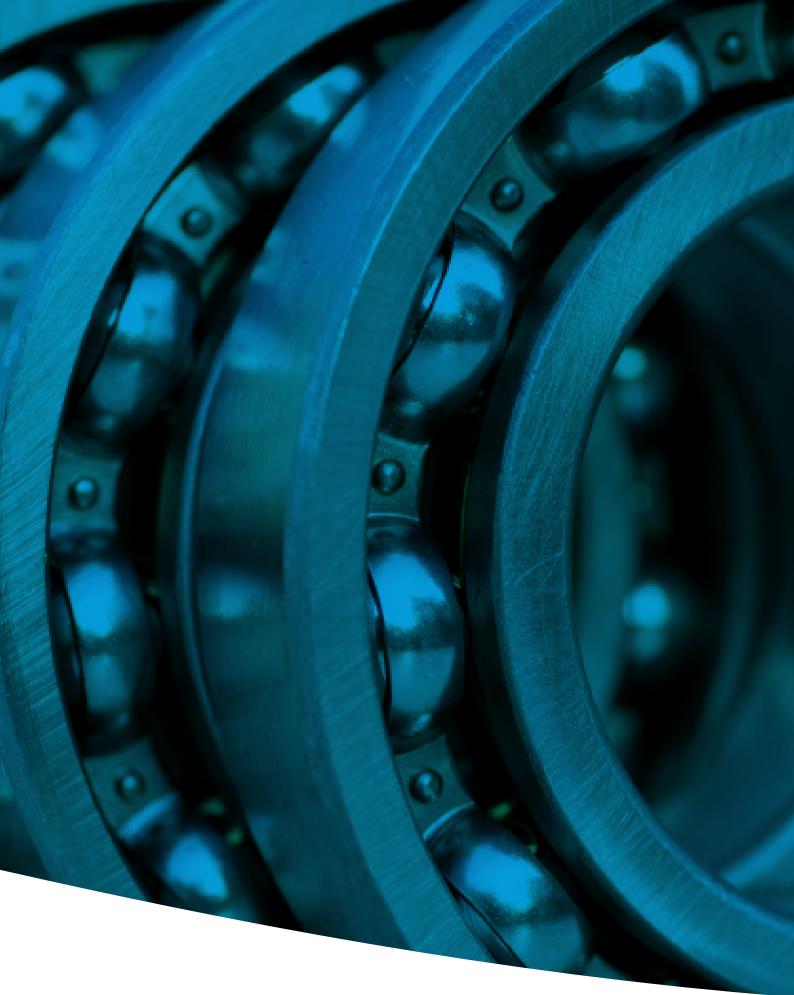
# Requirements/Approvals:

Meets API CF/CF-2 specification.

# VERKOGAS D - 40 SAE 40

Oil specially developed for use in naturally aspirated and turbocharged engines, powered by gases of high content in Sulphur, like sour gas, sewage or landfill gas, that contains mainly methane but also a big amount of corrosive acids, specially hydrogen sulphide. It is highly inhibited against corrosion, rust, oxidation and nitration as well as the formation of foam, providing a longer valve-life, avoiding wear, deposit formation and stiffening of the segments, therefore increasing the intervals between oil changes.

Recommended for use in WAUKESHA, JENBACHER and CATERPILLAR gas engines, which work in severe duty applications including cogeneration engines with ebullient cooling.



Greases

# **ANHYDROUS CALCIUM GREASES**

# **QUAKERTEK™ ALDEBA-2**

#### NLGI 2

Easy to inject or pump. Especially suitable for mechanisms in outdoor machinery: construction, motor vehicles, farm machinery.

Antiwear: 🛟

Corrosion Protection: • Water Resistance: • •

# QUAKERTEK™ ALDEBA GT-6/00

# NLGI 00

For main gearboxes and enclosed gear boxes under high load and heavy pressure conditions: mining, paper industry, railway industry.

Antiwear: 🗘 🗘

Extreme Pressure Characteristics: 🔾 🗘

# QUAKERTEK™ ALDEBA GT-6

# NLGI 2

For all types of ball and roller bearings operating at medium and low speeds and temperatures of up to 100°C. Ideally suited for mechanisms operating in water and under heavy load and pressure conditions.

Antiwear: 🛟 🛟

Extreme Pressure Characteristics: 😷 😷

Corrosion Protection: • • • Water Resistance: • • • •

# **Typical Values**

PRODUCT	DROPPING POINT (°C)	BASE FLUID TYPE	BASE FLUID VISCOSITY (mm²/s at 40°C)	OPERATING TEMPERATURE (°C)	COLOUR	SOLID LUBRICANTS	DIN 51.502 DESIGNATION
QUAKERTEK™ ALDEBA-2	150	Mineral	68	-20 to +100	Light yellow	NO	K 2G -20
QUAKERTEK™ ALDEBA GT-6/00	145	Mineral + polymer	1000	-20 to +90	Light yellow	NO	GP 00E -20
QUAKERTEK™ ALDEBA GT-6	150	Mineral + polymer	1000	-20 to +100	Light yellow	NO	KP 2G -20

# **MULTIPURPOSE LITHIUM GREASES**

# QUAKERTEK™ ASTURUS-2

# NLGI 2

For all types of bearings, especially in electric motors, pumps and flat bearings.

Antiwear: 🗘 🛟

Corrosion Protection: 😷 😷

Water Resistance: 🗘 🛟

# QUAKERTEK™ ASTURUS-3

# NLGI 3

For all types of bearings, especially in electric motors, pumps and flat bearings.

Antiwear: 🗘 🗘

Water Resistance: 🗘 🗘

# QUAKERTEK™ BB-1

# NLGI 1

For general greasing purposes and bearings.

Antiwear: 🗘

Corrosion Protection: \*\*O

Water Resistance: 🗘

# QUAKERTEK™ BB-2

# NLGI 2

For general greasing purposes and bearings.

Antiwear: 🗘

Corrosion Protection: •

Water Resistance: 🗘 🗘

# **Typical Values**

PRODUCT	DROPPING POINT (°C)	BASE FLUID TYPE	BASE FLUID VISCOSITY (mm²/s at 40°C)	OPERATING TEMPERATURE (°C)	COLOUR	SOLID LUBRICANTS	DIN 51.502 DESIGNATION
QUAKERTEK™ ASTURUS-2	190	Mineral	100	-35 to +120	Light yellow	NO	K 2K -30
QUAKERTEK™ ASTURUS-3	190	Mineral	100	-20 to +130	Light yellow	NO	K 3K -20
QUAKERTEK™ BB-1	190	Mineral	175	-35 to +110	Greenish	NO	K 1G -30
QUAKERTEK™ BB-2	190	Mineral	175	-35 to +110	Greenish	NO	K 2G - 30

# **E.P. LITHIUM GREASES**

# QUAKERTEK™ VERKOFARM

# **NLGI 2/3**

Suited for agricultural and construction machinery and motor vehicles.

Antiwear: 🗘 🛟

Extreme Pressure Characteristics: 😷 🛟

Corrosion Protection: 🖰 🗘 Water Resistance: 🗘 🗘

# QUAKERTEK™ RF-2 EP

# NLGI 2

For all types of mechanisms and bearings operating under heavy load conditions: steel industry, rolling industry, mining, construction machinery.

Antiwear: 😝 🛟

Extreme Pressure Characteristics: • •

Corrosion Protection: •• ••
Water Resistance: •• ••

# **QUAKERTEK™ EPX-00**

# NLGI 00

For main gearboxes and enclosed gear boxes under high load conditions. For certain centralized grease lubrication systems under high load conditions: mining, iron steel and paper industries.

Antiwear: 😷 😷

Extreme Pressure Characteristics: 🗘 🗘

Corrosion Protection: •• Water Resistance: ••

# QUAKERTEK™ EPX-0

# NLGI 0

For main gearboxes and close gear boxes under high load conditions. For certain centralized grease lubrication systems under high load conditions: mining, iron steel and paper industries.

Antiwear: 🗘 🗘

Extreme Pressure Characteristics: 🔾 🗘

Corrosion Protection: •• Water Resistance: ••

# QUAKERTEK™ EPX-1

# NLGI 1

For all types of mechanisms and bearings operating under heavy load conditions: steel industry, rolling industry, mining, construction machinery.

Antiwear: 🗘 🗘

Extreme Pressure Characteristics: 😷 😷

Corrosion Protection: 😷 😷 Water Resistance: 🗘 😷

# QUAKERTEK™ EPX-2

#### NLGI 2

For all types of mechanisms and bearings operating under heavy load conditions: steel industry, rolling industry, mining, construction machinery.

Antiwear: 🗘 🛟

Extreme Pressure Characteristics: 🔾 🗘

# **QUAKERTEK™ EPX-3**

# NLGI 3

For all types of mechanisms and bearings operating under heavy load conditions: steel industry, rolling industry, mining, construction machinery.

Antiwear: 😷 😷

Extreme Pressure Characteristics: () ()

Corrosion Protection: • • • Water Resistance: • • •

# QUAKERTEK™ KIRUNA-1 EP

# NLGI 1

For bearings and mechanisms in general operating under heavy load conditions: steel industry, rolling industry, mining, construction, paper industry.

Antiwear: 🗘 🗘

Extreme Pressure Characteristics: 😷 😷

Corrosion Protection: 🔾 🔾

Water Resistance: 🗘 🗘

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# QUAKERTEK™ KIRUNA-2 EP

#### NLGI 2

For bearings and mechanisms in general operating under heavy load conditions: steel industry, rolling industry, mining, construction, paper industry.

Antiwear: 🗘 🛟

Extreme Pressure Characteristics: 🗘 🗘

# QUAKERTEK™ VL-2R

#### NLGI 2

Railway-specific grease for axle boxes in wagons, locomotives and electric railcars.

Antiwear: 🗘 🗘 🗘

Extreme Pressure Characteristics: 🔾 🗘

# **QUAKERTEK™ TXP**

# **NLGI 2/3**

Ideally suited for bearings operating under heavy load and low speed conditions.

Antiwear: 🗘 🗘

Extreme Pressure Characteristics: 🔾 🗘

Corrosion Protection: •• •• Water Resistance: •• ••

# QUAKERTEK™ MOLYVERKOL-2

#### NLGI 2

Extreme pressure multipurpose grease with MoS2. Most suitable for difficult to access lubrication points operating under harsh load and vibratory conditions.

Antiwear: 🗘 🛟

Extreme Pressure Characteristics: 🔾 🗘 🗘

Corrosion Protection: • Water Resistance: • •

# QUAKERTEK™ FOK-2/E

#### NLGI 2

Especially recommended for running gears and heavy loaded sliding gears, automotive springs, bolts, farm and construction machinery.

Antiwear: 🗘 🛟

Extreme Pressure Characteristics: \*\*O \*\*C\*\*

Corrosion Protection: • Water Resistance: • •

# QUAKERTEK™ MOLYBDAL-2

# NLGI 2

Especially recommended for sliding gears under heavy loads and multipurpose applications in all types of machinery.

Antiwear: 🗘 🗘

Extreme Pressure Characteristics: 😷 😷

Corrosion Protection: •• Water Resistance: •• ••

# **Typical Values**

PRODUCT	DROPPING POINT (°C)	BASE FLUID TYPE	BASE FLUID VISCOSITY (mm²/s at 40°C)	OPERATING TEMPERATURE (°C)	COLOUR	SOLID LUBRICANTS	DIN 51.502 DESIGNATION
QUAKERTEK™ VERKOFARM	200	Mineral	100	-20 to +130	Dark brown	NO	KP 2/3K -20
QUAKERTEK™ RF-2 EP	197	Mineral	110	-20 to +120	Beige	NO	KP 2K -20
QUAKERTEK™ EPX-00	185	Mineral	175	-30 to +90	Dark brown	NO	GP 00E -30
QUAKERTEK™ EPX-0	190	Mineral	175	-30 to +100	Dark brown	NO	GP 0G -30
QUAKERTEK™ EPX-1	196	Mineral	175	-30 to +120	Dark brown	NO	KP 1K -30
QUAKERTEK™ EPX-2	200	Mineral	175	-30 to +130	Dark brown	NO	KP 2K -30
QUAKERTEK™ EPX-3	200	Mineral	175	-20 to +130	Dark brown	NO	KP 3K -20
QUAKERTEK™ KIRUNA-1 EP	185	Mineral	220	-30 to +120	Brown	YES	KPF 1K -30
QUAKERTEK™ KIRUNA-2 EP	203	Mineral	220	-30 to +120	Brown	YES	KPF 2K -30
QUAKERTEK™ VL-2R	188	Mineral	165	-20 to +140	Brown	NO	KP 2N -20
QUAKERTEK™ TXP	200	Mineral	320	-20 to +130	Brown	NO	KP 2/3K -20
QUAKERTEK™ MOLYVERKOL-2	195	Mineral	150	-30 to +130	Metallic black	YES	KPF 2K -30
QUAKERTEK™ FOK-2/E	193	Mineral	100	-20 to +120	Black	YES	KPF 2K -20
QUAKERTEK™ MOLYBDAL-2	190	Mineral	175	-20 to +130	Black	YES	KPF 2K -20

# **INORGANIC GREASES**

# QUAKERTEK™ GVA -2

# NLGI 2

Most suitable for lubrication of bearings operating at medium and high speeds and high temperatures.

Antiwear: 🛟

Corrosion Protection: 😷

Water Resistance: 🗘 🛟

# QUAKERTEK™ GVA MO

# NLGI 2

Most suitable for lubrication of bearings operating at medium and high speeds and sliding gears under load.

Antiwear: 🗘 🗘

Extreme Pressure Characteristics: 😷

Corrosion Protection: 😷

Water Resistance: 🗘 🛟

# **Typical Values**

PRODUCT	DROPPING POINT (°C)	BASE FLUID TYPE	BASE FLUID VISCOSITY (mm²/s at 40°C)	OPERATING TEMPERATURE (°C)	COLOUR	SOLID LUBRICANTS	DIN 51.502 DESIGNATION
QUAKERTEK™ GVA -2	Infusible	Mineral	115	-20 to +140	Light yellow	NO	K 2N -20
QUAKERTEK™ GVA MO	Infusible	Mineral	115	-20 to +140	Metallic black	YES	KPF 2N -20

# **SPECIAL SODIUM GREASE**

# **QUAKERTEK™ THT-2**

# NLGI 2

For all types of mechanisms operating under very high temperatures such as furnaces, conveyor chains in drying kilns and rolling elements in continuous casting machines.

Antiwear: 🛟

Extreme Pressure Characteristics: 🗘

Corrosion Protection: 😷

Water Resistance: 🗘 🛟

# **Typical Values**

PRODUCT	DROPPING POINT (°C)	BASE FLUID TYPE	BASE FLUID VISCOSITY (mm²/s at 40°C)	OPERATING TEMPERATURE (°C)	COLOUR	SOLID LUBRICANTS	DIN 51.502 DESIGNATION
QUAKERTEK™ THT-2	267	Mineral	320	-10 to +140	Beige	NO	K 2N -10

# **ALUMINIUM COMPLEX GREASES**

# QUAKERTEK™ ALC-00 HV

# NLGI 00

High-performance sprayable grease suited for in-service lubrication of large gears in ball mills and rotary kilns in cement industry, mining and ceramics.

Antiwear: 🗘 🗘

Extreme Pressure Characteristics: 🗘 🗘 🗘

Corrosion Protection: • Water Resistance: • •

# **Typical Values**

# **QUAKERTEK™ ALC-0 HV**

# NLGI 0

High-performance sprayable grease suited for in-service lubrication of large gears in ball mills and rotary kilns in cement industry, mining and ceramics.

Antiwear: 🗘 🗘

Extreme Pressure Characteristics: 🗘 🗘 🗘

Corrosion Protection: 🗘 🗘

Water Resistance: 🗘 🗘

PRODUCT	DROPPING POINT (°C)	BASE FLUID TYPE	BASE FLUID VISCOSITY (mm²/s at 40°C)	OPERATING TEMPERATURE (°C)	COLOUR	SOLID LUBRICANTS	DIN 51.502 DESIGNATION
QUAKERTEK™ ALC-00 HV		Mineral + polymer	1500	-10 to +120	Black	YES	OGPF 00K -10
QUAKERTEK™ ALC-0 HV		Mineral + polymer	1500	-10 to +120	Black	YES	OGPF 0K -10

# LITHIUM COMPLEX GREASES

# **QUAKERTEK™ 320-A**

# NLGI 2

Suitable for wheel bearings and electric brakes in current trucks and coaches as well as for industrial applications.

Antiwear: 🗘

Extreme Pressure Characteristics: 😷

Corrosion Protection: • Water Resistance: • •

# QUAKERTEK™ 320-I GR.1

# NLGI 1

Suited for centralized lubrication systems in mechanisms under high temperature and heavy pressure conditions.

Antiwear: 🛟

Extreme Pressure Characteristics: 🗘

Corrosion Protection: 60

Water Resistance: 🛟 🛟

# QUAKERTEK™ 320-I

# **NLGI 2/1**

Suitable for wheel bearings and electrical brakes in current trucks and coaches as well as for industrial applications.

Antiwear: 🛟

Extreme Pressure Characteristics: 😷

Corrosion Protection: 🗘 🗘

Water Resistance: 🗘 🗘

# QUAKERTEK™ VITALBLUE BF

# **NLGI 3/2**

Grease for all types of bearings under medium- high temperatures. Suited for wheel hubs and electric brakes in heavy-duty vehicles.

Antiwear: 🗘 🗘 🗘

Extreme Pressure Characteristics: 🗘 🗘

Corrosion Protection: 😛 🗘

Water Resistance: 🗘 🛟

# QUAKERTEK™ TERMOPLEX 220 EP

# **NLGI 2/3**

Especially designed for lubrication of bearings and flat bearings under extreme vibratory load conditions: mill and rotary oven bearings, grinding mills, screens, rolling mill cylinders.

Antiwear: 🗘 🗘 🗘

Extreme Pressure Characteristics: 🗘 🗘 🗘

Corrosion Protection: • •

# QUAKERTEK™ VERKOPLEX XP-12

# **NLGI 1/2**

For all types of mechanisms and bearings under high temperatures. Recommended for: steel industry, mining, rolling industry and construction machinery. Suitable for centralized lubrication systems.

Antiwear: 🗘 🗘

Extreme Pressure Characteristics: 🕠 🗘

Corrosion Protection: 🖰 😷 Water Resistance: 🗘 🗘

# QUAKERTEK™ VERKOPLEX XP-2

#### NLGI 2

Suited for application in bearings and mechanisms in general under heavy load and high temperature conditions.

Antiwear: 🗘 🗘

Extreme Pressure Characteristics: 🗘 🗘

Corrosion Protection: 🖰 😷 Water Resistance: 🛟 🗘

# QUAKERTEK™ VERKOPLEX ST-1

#### NLGI 1

For mechanisms and bearings under high temperatures and heavy load. Most suitable for steel industry especially for centralized lubrication systems.

Antiwear: 🗘 🛟

Extreme Pressure Characteristics: 😷 😷

# QUAKERTEK™ VERKOPLEX EP-2

# NLGI 2

For bearings operating under high temperature and heavy pressure conditions.

Most suitable for the steel industry.

Antiwear: 🗘 🛟

Extreme Pressure Characteristics: 😷 😷

Corrosion Protection: 🖰 😯 Water Resistance: 🗘 🗘

# **QUAKERTEK™ VERKOTAC-350**

#### **NLGI 0/1**

Especially developed for open gears. Suitable for mining and construction machinery.

Antiwear: 🗘 🗘 🛟

Extreme Pressure Characteristics: 🗘 🗘 🗘

# **QUAKERTEK™ ATLANTA**

#### NLGI 2

Recommended for lubrication of bearings, gears and mechanisms in general under heavy loads and slow and oscillating speeds: public works machinery, mining, quarries, farm machinery. Ideal for lubricating bolts and shanks in hydraulic concrete breakers.

Antiwear: 🗘 🗘 🗘

Extreme Pressure Characteristics: 🔾 🗘 🗘

# QUAKERTEK™ ATLANTA-1

#### NLGI 1

Recommended for lubrication of bearings, gears and mechanisms in general under heavy loads and slow and oscillating speeds: public works machinery, mining, quarries, agricultural machinery. Ideal for lubricating bolts and shanks in hydraulic concrete breakers. Suitable for centralized lubrication.

Antiwear: 🗘 🗘 🛟

Extreme Pressure Characteristics: 🗘 🗘 🗘

# QUAKERTEK™ COBERTONE-1

# NLGI 1

Recommended as priming grease in open gears of rotary equipment in the cement and mining industry.

Antiwear: 🗘 🗘

Extreme Pressure Characteristics: 🗘 🗘 🗘

Corrosion Protection: •• Water Resistance: •• ••

# **Typical Values**

PRODUCT	DROPPING POINT (°C)	BASE FLUID TYPE	BASE FLUID VISCOSITY (mm²/s at 40°C)	OPERATING TEMPERATURE (°C)	COLOUR	SOLID LUBRICANTS	DIN 51.502 DESIGNATION
QUAKERTEK™ 320-A	287	Mineral	120	-20 to +140	Light brown	NO	K 2N -20
QUAKERTEK™ 320-I GR.1	285	Mineral	460	-20 to +150	Brown	NO	K 1N -20
QUAKERTEK™ 320-I	288	Mineral	460	-20 to +150	Brown	NO	K 2/1N -20
QUAKERTEK™ VITALBLUE BF	280	Mineral	135	-20 to +140	Blue	NO	KP 3/2N -20
QUAKERTEK™ TERMOPLEX 220 EP	285	Mineral	220	-20 to +150	Yellow	NO	KP 2/3N -20
QUAKERTEK™ VERKOPLEX XP-12	275	Mineral	220	-20 to +140	Dark brown	NO	KP 1/2N -20
QUAKERTEK™ VERKOPLEX XP-2	280	Mineral	220	-20 to +140	Dark brown	NO	KP 2N -20
QUAKERTEK™ VERKOPLEX ST-1	272	Mineral	320	-15 to +140	Dark brown	NO	KP 1N -10
QUAKERTEK™ VERKOPLEX EP-2	286	Mineral	460	-15 to +140	Dark brown	NO	KP 2N -10
QUAKERTEK™ VERKOTAC-350	265	Mineral + polymer	500	-10 to +140	Beige	YES	OGPF 0/1N -10
QUAKERTEK <sup>™</sup> ATLANTA	>280	Mineral + polymer	1000	-10 to +160	Metallic black	YES	KPF 2P -10
QUAKERTEK™ ATLANTA-1	>265	Mineral + polymer	1000	-10 to +160	Metallic black	YES	KPF 1P -10
QUAKERTEK™ COBERTONE-1	272	Mineral + polymer	250	-20 to +140	Black	YES	OGPF 1N -20

# **LITHIUM - CALCIUM COMPLEX GREASES**

# QUAKERTEK™ RODAPLEX PM-1

# NLGI 1

Designed for lubrication of bearings in papermaking machines, both in the wet and the dry sections, using centralized lubrication systems.

Antiwear: 🗘 🛟

Extreme Pressure Characteristics: 😛 🗘

# QUAKERTEK™ RODAPLEX PM-2

#### NLGI 2

Designed for lubrication of bearings in papermaking machines, both in the wet and the dry sections.

Antiwear: 🛟 🛟

Extreme Pressure Characteristics: 🗘 🗘 🗘

Corrosion Protection: •• •• •• •• Water Resistance: •• •• ••

# **Typical Values**

PRODUCT	DROPPING POINT (°C)	BASE FLUID TYPE	BASE FLUID VISCOSITY (mm²/s at 40°C)	OPERATING TEMPERATURE (°C)	COLOUR	SOLID LUBRICANTS	DIN 51.502 DESIGNATION
QUAKERTEK™ RODAPLEX PM-1	240	Mineral	400	-20 to +140	Beige	YES	KPF 1N -20
QUAKERTEK™ RODAPLEX PM-2	261	Mineral	400	-20 to +140	Beige	YES	KPF 2N -20

# **CALCIUM SULPHONATE (SULFONATE) COMPLEX**

# QUAKERTEK™ VERKOMAX SG-1

# NLGI 1

Most suitable for lubricating rolling mill bearings in the steel industry. Also ideal for the paper industry. Suitable for automatic lubrication systems.

Antiwear: 🗘 🗘

Extreme Pressure Characteristics: 🔾 🔾 🗘

# QUAKERTEK™ VERKOMAX SG-2

# NLGI 2

Most suitable for lubricating rolling mill bearings in the steel industry. Also ideal for the paper industry.

Antiwear: 🗘 🗘

Extreme Pressure Characteristics: 😲 🗘 🗘

# QUAKERTEK™ VERKOMAX EP-12

#### **NLGI 1/2**

Most suited for lubricating rolling mill bearings in the steel industry. Suitable for automatic lubrication systems.

Antiwear: 🗘 🗘

Extreme Pressure Characteristics: 🗘 🗘 🗘

Corrosion Protection: ① ① ① ① Water Resistance: ① ① ①

# **QUAKERTEK™ VERKOMAX RS-12**

# **NLGI 1/2**

Most suited for lubricating rolling mill bearings in the steel industry. Suitable for automatic lubrication systems.

Antiwear: 🗘 🛟

Extreme Pressure Characteristics: 🗘 🗘 🗘

# QUAKERTEK™ VERKOMAX EP-2

#### NLGI 2

Most suited for lubricating rolling mill bearings in the steel industry.

Antiwear: 🗘 🗘

Extreme Pressure Characteristics: 🔾 🗘 🗘

# QUAKERTEK™ VERKOMAX R-250

#### NLGI 2

Specially designed to lubricate most grease points in off-road, mining and agricultural machinery. Also recommended in the industry, in machinery contaminated with process or wash waters and under high loads and temperatures of up to 130°C, and in those mechanisms in the food industry not requiring a H1 quality grease. Suitable for use in centralized lubrication systems.

Antiwear: 🗘 🗘 🗘

Extreme Pressure Characteristics: 🔾 🗘 🗘

# QUAKERTEK™ VERKOMAX R-1000

# NLGI 2

Recommended to lubricate plain and rolling contact bearings, gears and in general mechanisms working under very high pressures and low and oscillating speeds: off-road, mining and agricultural machinery. Due to its outstanding water resistance, it is especially indicated for lubricating plain and rolling contact bearings, guides, racks, floodgates and pitch wheels in maritime and port machinery.

Antiwear: 🗘 🗘 🗘

Extreme Pressure Characteristics: 🔾 🗘 🗘

# **Typical Values**

PRODUCT	DROPPING POINT (°C)	BASE FLUID TYPE	BASE FLUID VISCOSITY (mm²/s at 40°C)	OPERATING TEMPERATURE (°C)	COLOUR	SOLID LUBRICANTS	DIN 51.502 DESIGNATION
QUAKERTEK™ VERKOMAX SG-1	275	Mineral	220	-15 to +140	Greenish brown	NO	KP 1N -10
QUAKERTEK™ VERKOMAX SG-2	280	Mineral	220	-15 to +150	Greenish brown	NO	KP 2N -10
QUAKERTEK™ VERKOMAX EP-12	283	Mineral	400	-20 to +150	Greenish brown	NO	KP 1/2N -20
QUAKERTEK™ VERKOMAX RS-12	285	Mineral	400	-20 to +150	Red	NO	KP 1/2N -20
QUAKERTEK™ VERKOMAX EP-2	280	Mineral	400	-20 to +150	Greenish brown	NO	KP 2N -20
QUAKERTEK™ VERKOMAX R-250	260	Mineral	250	-35 to +130	Red	YES	KPF 2K -30
QUAKERTEK™ VERKOMAX R - 1000	260	Mineral + Polymer	1000	-20 to +140	Red	YES	KPF 2N -20

# **POLYMERIC GREASES**

# QUAKERTEK™ WG

# NI GI OO

Lubricant gel especially suited for gears with leakage problems.

Antiwear: 🗘 🗘

Extreme Pressure Characteristics: 🗘 🗘 🗘

Corrosion Protection: •• Water Resistance: ••

# **QUAKERTEK™ CADENAS-WT**

# NLGI 00

Lubricant gel especially suited for lubricating wire ropes, gear drives and conveyor chains operating at ambient temperature.

Antiwear: 🗘 🗘 🗘

Extreme Pressure Characteristics: 🗘 🗘 🗘

Corrosion Protection: • Water Resistance: •

# QUAKERTEK™ COBERTONE-0

#### NLGI 0

Lubricant for open gears in rotary kilns, tube mills, blenders or wire ropes of cranes and crane bridges.

Antiwear: 🛟 🛟

Extreme Pressure Characteristics: 🗘 🗘 🗘

# **Typical Values**

PRODUCT	DROPPING POINT (°C)	BASE FLUID TYPE	BASE FLUID VISCOSITY (mm²/s at 40°C)	OPERATING TEMPERATURE (°C)	COLOUR	SOLID LUBRICANTS	DIN 51.502 DESIGNATION
QUAKERTEK™ WG		Mineral	475	-10 to +100	Yellow	NO	GP 00G -10
QUAKERTEK™ CADENAS-WT		Mineral	475	-10 to +100	Yellow	YES	
QUAKERTEK™ COBERTONE-0		Mineral	475	-10 to +100	Black	YES	OGPF 0G -10

# **POLYUREA GREASES**

# QUAKERTEK™ CENTAURI 202

# NLGI 2

This grease is based on high quality mineral oils and polyurea thickener. Excellent corrosion protection, good oxidation stability and outstanding lubrication in extreme temperature applications.

Antiwear: 🗘 🗘 🗘

Extreme Pressure Characteristics: 🗘 🗘

# QUAKERTEK™ CENTAURI 460 EP 12

# **NLGI 1/2**

Excellent corrosion protection, good oxidation stability, high loads and extreme temperature applications.

Antiwear: 🗘 🗘 🗘

Extreme Pressure Characteristics: 🗘 🗘 🗘

# **Typical Values**

PRODUCT	DROPPING POINT (°C)	BASE FLUID TYPE	BASE FLUID VISCOSITY (mm²/s at 40°C)	OPERATING TEMPERATURE (°C)	COLOUR	SOLID LUBRICANTS	DIN 51.502 DESIGNATION
QUAKERTEK™ CENTAURI 202	270	Mineral	100	-25 to +180	Yellow	NO	K 2R-20
QUAKERTEK™ CENTAURI 460 EP 12	300	Mineral	460	-15 to +140	Dark brown	NO	KP 1/2N-10

# **SYNTHETIC GREASES**

# **LITHIUM**

# QUAKERTEK™ ANTARES 2 EP

# NLGI 2

Special grease for high-speed screws in machine tools and for lubricating gears and operating spindles in aircrafts.

Antiwear: 🗘

Corrosion Protection: 😷 😷

Water Resistance: 🐽

# QUAKERTEK™ PATELA G-00

# NLGI 00

Especially recommended for worm gears and for centralized greasing systems requiring a high-quality fluid grease.

Antiwear: 🗘 🗘

Extreme Pressure Characteristics: 🔾 🗘

Corrosion Protection: 😷

Water Resistance: 🗘

# **Typical Values**

PRODUCT	DROPPING POINT (°C)	BASE FLUID TYPE	BASE FLUID VISCOSITY (mm²/s at 40°C)	OPERATING TEMPERATURE (°C)	COLOUR	SOLID LUBRICANTS	DIN 51.502 DESIGNATION
QUAKERTEK™ ANTARES 2 EP	185	Synthetic	10	-73 to +125	Fuchsia	NO	KE 2H -70
QUAKERTEK™ PATELA G-00		Synthetic	150	-40 to +130	Blue	NO	GPPG 00K -40

# **LITHIUM COMPLEX**

# **QUAKERTEK™ ALTHEA-2**

#### NLGI 2

For high-speed screws in machine tool heads, spinning mill spindles and as long-term grease for precision bearings.

Antiwear: 🗘 🛟

Extreme Pressure Characteristics: •

# QUAKERTEK™ ALHENA-1 EP

#### **NLGI 1/2**

Designed for lubricating large bearings operating at slow or medium speeds and high vibratory loads. Most recommended for water-cooled bearings or bearings operating under saturated steam: papermaking machines, continuous casting, roller tracks, chills and rolling mills. Suitable for centralized lubrication systems.

Antiwear: 🗘 🗘 🛟

Extreme Pressure Characteristics: • •

# QUAKERTEK™ CORALIA-2

#### **NLGI 2/3**

Most suited for lubrication of bearings in electrical motors and fans at medium and medium-high speeds and high temperatures. Suitable for long-life lubrication.

Antiwear: 🗘 🗘

Extreme Pressure Characteristics: () ()

Corrosion Protection: • Water Resistance: • •

# QUAKERTEK™ ALHENA-2 EP

#### **NLGI 2/3**

Designed for lubricating large bearings operating at slow or medium speeds and high vibratory loads. Most recommended for water-cooled bearings or bearings operating under saturated steam: papermaking machines, continuous casting, roller tracks, chills and rolling mills. Suitable for centralized lubrication systems.

Antiwear: 🗘 🗘 🗘

Extreme Pressure Characteristics: 🗘 🛟

# **Typical Values**

PRODUCT	DROPPING POINT (°C)	BASE FLUID TYPE	BASE FLUID VISCOSITY (mm²/s at 40°C)	OPERATING TEMPERATURE (°C)	COLOUR	SOLID LUBRICANTS	DIN 51.502 DESIGNATION
QUAKERTEK™ ALTHEA-2	>250	Synthetic	26	-30 to +130	Beige	NO	KE 2K -30
QUAKERTEK™ CORALIA-2	>250	Synthetic	85	-50 to +150	Yellow	NO	KPEHC 2/3N -40
QUAKERTEK™ ALHENA-1 EP	270	Synthetic	460	-30 to +160	Beige	NO	KPEHC 1/2P -30
QUAKERTEK™ ALHENA-2 EP	297	Synthetic	460	-30 to +160	Beige	NO	KPEHC 2/3P -30

# **CALCIUM SULFONATE COMPLEX**

# QUAKERTEK™ VERKOMAX HTS - 12

# **NLGI 1/2**

Specially designed for steel industry, for use in heat treatment furnaces, reheat, annealing, rolling mills, continuous casting, cooling banks, roller conveyors, where marked characteristics of extreme pressure, as well as water and oxidation resistance are required.

Antiwear: 🗘 🗘 🗘

Extreme Pressure Characteristics: 🔾 🗘

# **Typical Values**

PRODUCT	DROPPING POINT (°C)	BASE FLUID TYPE	BASE FLUID VISCOSITY (mm²/s at 40°C)	OPERATING TEMPERATURE (°C)	COLOUR	SOLID LUBRICANTS	DIN 51.502 DESIGNATION
QUAKERTEK™ VERKOMAX HTS - 12	300	Synthetic	460	-30 to +170	Brown	YES	KPCH 2P -30

# **INORGANIC**

# QUAKERTEK™ CORVUS G-2 HT

# NLGI 2

For lubricating bearings operating at medium and high speeds.

Antiwear: 🗘 🗘

Extreme Pressure Characteristics: 🔾 🗘

Corrosion Protection: •• Water Resistance: •• ••

# **Typical Values**

PRODUCT	DROPPING POINT (°C)	BASE FLUID TYPE	BASE FLUID VISCOSITY (mm²/s at 40°C)	OPERATING TEMPERATURE (°C)	COLOUR	SOLID LUBRICANTS	DIN 51.502 DESIGNATION
QUAKERTEK™ CORVUS G-2 HT	Infusible	Synthetic	100	-40 to +160	Yellow	NO	KPHC 2P -40

# **PYROGENIC SILICA**

# QUAKERTEK™ VERKOSIL G-2

#### NLGI 2

Fitting agent for joints and elastomers in hydraulic systems. Sealing agent for bearings and joints. Excellent dielectric properties.

Corrosion Protection: 😷

Water Resistance: 🗘 🗘

# **Typical Values**

PRODUCT	DROPPING POINT (°C)	BASE FLUID TYPE	BASE FLUID VISCOSITY (mm²/s at 40°C)	OPERATING TEMPERATURE (°C)	COLOUR	SOLID LUBRICANTS	DIN 51.502 DESIGNATION
QUAKERTEK™ VERKOSIL G-2	Infusible	Synthetic	680 (2200 a 25°C)	-40 to +180	White	NO	MSI 2R-40

# **FLUORINATED GREASES**

# **QUAKERTEK™ VERKOFLUOR 862**

# **NLGI 1/2**

Particularly resistant to oxidation and chemical agents and compatible with all types of materials: glass, metal, elastomers, ceramics, etc., whose properties remain unaltered even under wide temperature ranges. Its physico-chemical and tribological properties make it an excellent and resistant grease for many industries: corrugated fibreboard, bakeries, chemistry, ceramic, automobile, electronics, aerospace, steel and paper, among others. Grease totally inert, except in the presence of chemical agents with high fluorine content, and innocuous, which makes it perfectly recommendable for applications with food contact.

Antiwear: 🗘 🗘

Extreme Pressure Characteristics: 🗘 🗘 🗘

Corrosion Protection: 😷 😷

Water Resistance: 🗘 🛟

# QUAKERTEK™ VERKOFLUOR RT-2

# NLGI 2

Recommended for use in applications such as overhead conveyors in paint ovens, roll supports in the dry section of paper machines, bearings in all types of tunnel furnaces, plain bearings in glass furnaces, chain bearings in textile stenters, railcar wheels in ceramic kilns and valves for hydrocarbons, gases and strongly oxidising inorganic fluids in the chemical and petrochemical sectors. This grease may be used in applications requiring a lifetime or long-life lubrication grease, such as azimuth turning bearings in wind turbines, and in applications with lower load and temperature requirements but where the longest possible performance over time is intended. Grease totally inert, except in the presence of chemical agents with high fluorine content, and innocuous, which makes it perfectly recommendable for applications with food contact.

Antiwear: 🗘 🛟

Extreme Pressure Characteristics: 🔾 🗘 🔾

Corrosion Protection: 🗘 🗘

Water Resistance: 🗘 🗘

# **Typical Values**

PRODUCT	DROPPING POINT (°C)	BASE FLUID TYPE	BASE FLUID VISCOSITY (mm²/s at 40°C)	OPERATING TEMPERATURE (°C)	COLOUR	SOLID LUBRICANTS	DIN 51.502 DESIGNATION
QUAKERTEK™ VERKOFLUOR 862		PFPE	290	-35 to +250	White	NO	
QUAKERTEK™ VERKOFLUOR RT-2		PFPE	420	-20 to +250	White	NO	

# **PASTES**

# **MINERAL + POLYMER**

# QUAKERPASTE™ MOLYWHITE SUPER

# NLGI 2

Fitting and priming paste for all types of mechanisms.

Antiwear: 🗘 🗘 🛟

Extreme Pressure Characteristics: 🗘 🗘 🗘

Corrosion Protection: • Water Resistance: • •

# QUAKERPASTE™ ATLANTA PICK

# NLGI 2

Designed for lubricating picks and chisels of hydraulic hammers.

Antiwear: 🛟

Extreme Pressure Characteristics: 🔾 🗘 🗘

Corrosion Protection: • Water Resistance: • • •

# QUAKERPASTE™ ATLANTA AG

# NLGI 000/00

Specifically designed to facilitate the sliding and to prevent the jamming of sliding surfaces with relative movement at low speeds and high temperatures.

Antiwear: 🛟

Extreme Pressure Characteristics: 🔾 🗘 🗘

# **Typical Values**

PRODUCT	DROPPING POINT (°C)	BASE FLUID TYPE	BASE FLUID VISCOSITY (mm²/s at 40°C)	OPERATING TEMPERATURE (°C)	COLOUR	SOLID LUBRICANTS	DIN 51.502 DESIGNATION
QUAKERPASTE™ MOLYWHITE SUPER		Mineral + polymer		-20 to +200	Yellow	YES	
QUAKERPASTE™ ATLANTA PICK		Mineral + polymer		-20 to +250	Metallic gray	YES	
QUAKERPASTE™ ATLANTA AG		Mineral + polymer		-20 to +450	Metallic gray	YES	

# **MINERAL**

# QUAKERPASTE™ GB-200 ZN

# NLGI 2

Suited for pneumatic drilling machinery operating in harsh environments and pump lubrication of terminal threads in drilling systems.

Extreme Pressure Characteristics: 🔾 🔾 🗘

Corrosion Protection: ()

Water Resistance: 🗘 🗘

# QUAKERPASTE™ SC

# NLGI 0

Recommended for centralized lubrication systems of concrete breaker shafts.

Extreme Pressure Characteristics: 0 0 0

Corrosion Protection: 🗘

Water Resistance: 😷

# QUAKERPASTE™ GX-12

#### **NLGI 1/2**

Especially recommended for pneumatic drilling machinery, for the lubrication of terminal threads in drilling systems.

Extreme Pressure Characteristics: 🔾 🗘 🗘

Corrosion Protection: 🛟

Water Resistance: 🗘

# QUAKERPASTE™ VERKOPICK-2

# NLGI 2

Suited for continuing lubrication of drilling hammers with centralized greasing systems.

Antiwear: 😷

Extreme Pressure Characteristics: 🔾 🗘 🗘

Corrosion Protection: • Water Resistance: • • • •

# **Typical Values**

PRODUCT	DROPPING POINT (°C)	BASE FLUID TYPE	BASE FLUID VISCOSITY (mm²/s at 40°C)	OPERATING TEMPERATURE (°C)	COLOUR	SOLID LUBRICANTS	DIN 51.502 DESIGNATION
QUAKERPASTE™ GB-200 ZN		Mineral		Up to 400°C	Metallic gray	YES	
QUAKERPASTE™ SC		Mineral		-20 to +1000	Copper red	YES	
QUAKERPASTE™ GX-12		Mineral		-20 to +1000	Copper red	YES	
QUAKERPASTE™ VERKOPICK-2		Mineral		-20 to +250	Copper black	YES	

# **BIODEGRADABLE GREASES**

# **ANHYDROUS CALCIUM**

# QUAKERTEK™ BIOVERKOL CR-1

#### NLGI 1

Suited for applications in mechanisms operating in harsh and/or humid environments under medium load conditions, such as in farming, mining, quarries, construction and papermaking companies.

Antiwear: 🛟

Extreme Pressure Characteristics: 😲

Corrosion Protection: (

Water Resistance: 🗘 🗘

Requirements/Approvals:

EU Ecolabel licence nº ES-NA/027/002

# QUAKERTEK™ BIOVERKOL CR-2

# NLGI 2

Suited for applications in mechanisms operating in harsh and/or humid environments under medium load conditions, such as in farming, mining, quarries, construction and papermaking companies.

Antiwear: 😷

Extreme Pressure Characteristics: 🗘

Corrosion Protection: 🗘

Water Resistance: 🗘 🛟

Requirements/Approvals:

EU Ecolabel licence nº ES-NA/027/002

# QUAKERTEK™ BIO 430

#### NLGI 00

Designed for the lubrication of wheel flanges by means of on-board lubricators (locomotives and wagons) to protect railways and wheel flanges.

Antiwear: 🛟 🛟

Extreme Pressure Characteristics: 🗘 🗘

Corrosion Protection: ••
Water Resistance: ••

# QUAKERTEK™ BIO-CABLES

# NLGI 0/00

For lubricating cables and chains in harbour cranes and any other installations operating in contact with sea water or water intended for human consumption.

Antiwear: 🐽

Extreme Pressure Characteristics: 🔾 🗘

Corrosion Protection: •• Water Resistance: •• ••

# QUAKERTEK™ BIO G.C.G.

# **NLGI 1/2**

Suited for lubricating railway maintenance lubricators.

Antiwear: 🛟

Extreme Pressure Characteristics: () ()

Corrosion Protection: 🗘

Water Resistance: 🗘 🗘

# **Typical Values**

PRODUCT	DROPPING POINT (°C)	BASE FLUID TYPE	BASE FLUID VISCOSITY (mm²/s at 40°C)	OPERATING TEMPERATURE (°C)	COLOUR	SOLID LUBRICANTS	DIN 51.502 DESIGNATION
QUAKERTEK™ BIOVERKOLCR-1	150	Natural ester	200	-20 to +90	Ivory white	YES	KPFE 1E -20
QUAKERTEK™ BIOVERKOL CR-2	150	Natural ester	200	-20 to +90	Ivory white	YES	KPFE 2E -20
QUAKERTEK™ BIO 430	140	Synthetic ester	68	-30 to +70	Black	YES	
QUAKERTEK™ BIO-CABLES	144	Natural ester + Synthetic ester	100	-20 to +70	Black	YES	
QUAKERTEK™ BIO G.C.G.	147	Natural ester + Synthetic ester	100	-20 to +70	Black	YES	

# **H1 FOOD PROCESSING GREASES**

# ANHYDROUS CALCIUM

# QUAKERTEK™ VERKOFOOD FG-2

#### NLGI 2

Suited for food processing and packaging industries, in order to prevent the risk of toxicity in case of incidental contact between the grease and the food or its packing. Especially designed for all types of bearings operating at medium/high speeds.

Antiwear: 🛟

Corrosion Protection: 0

Water Resistance: 🗘 🗘

# Requirements/Approvals:

H1 Category Code. NSF Registration No. 123124.

Halal Certified No IH-648/2.4/NA/19.

# QUAKERTEK™ VERKOFOOD LT-2

#### NLGI 2

Suited for food processing and packaging industries, in order to prevent the risk of toxicity in case of incidental contact between the grease and the food or its packing. Especially designed for application in all types of moving or rolling mechanisms operating at very low temperatures.

Antiwear: 🗘

Corrosion Protection: (1)

Water Resistance: 🗘 🛟

# Requirements/Approvals:

H1 Category Code. NSF Registration No. 131808.

Halal Certified No IH-648/2.4/NA/19.

# **Typical Values**

PRODUCT	DROPPING POINT (°C)	BASE FLUID TYPE	BASE FLUID VISCOSITY (mm²/s at 40°C)	OPERATING TEM- PERATURE (°C)	COLOUR	SOLID LUBRICANTS	DIN 51.502 DESIGNATION
QUAKERTEK™ VERKOFOOD FG-2	150	Mineral + polymer	46	-30 to +100	White	NO	K 2G -30
QUAKERTEK™ VERKOFOOD LT-2	150	Synthetic	38	-60 to +100	White	NO	KHC 2G -60

# QUAKERTEK™ VERKOFOOD OLV - 12

# **NLGI 1/2**

Special vegetable oil-based anhydrous calcium grease with PTFE additives. It features good adherence and water resistance, protective qualities against oxidation and corrosion and anti-wear properties. It is free of mineral oil, MOSH and MOAH.

Antiwear: 00

Extreme Pressure Characteristics: 🗘 🗘 🗘

Corrosion Protection: 🗘 🗘 🗘 Water Resistance: 🗘 🗘 🗘

# Requirements/Approvals:

H1 Category Code. NSF Registration No. 143654. Halal Certified No IH-648/2.4/NA/19.

# **Typical Values**

PRODUCT	DROPPING POINT (°C)	BASE FLUID TYPE	BASE FLUID VISCOSITY (mm²/s at 40°C)	OPERATING TEMPERATURE (°C)	COLOUR	SOLID LUBRICANTS	DIN 51.502 DESIGNATION
QUAKERTEK™ VERKOFOOD OLV - 12	145	Natural ester	150	-10 to +90	Ivory white	YES	KPFE 1/2E-10

# **ALUMINIUM COMPLEX**

# QUAKERTEK™ VERKOFOOD - COMPLEX 00

#### NLGI 00

Suited for food processing and packaging industries, in order to prevent the risk of toxicity in case of incidental contact between the grease and the food or its packing. Owing to its good pumpability, it is specially indicated to lubricate via centralized systems all types of rolling and slide bearings, gears and other mechanisms.

Antiwear: 🗘

Extreme Pressure Characteristics: 🗘 🗘

Corrosion Protection: •• Water Resistance: ••

# Requirements/Approvals:

H1 Category Code. NSF Registration No. 148381. Halal Certified No IH-648/2.4/NA/19.

# QUAKERTEK™ VERKOFOOD - COMPLEX 0

# NLGI 0

Suited for food processing and packaging industries, in order to prevent the risk of toxicity in case of incidental contact between the grease and the food or its packing. Suitable for centralized greasing systems.

Antiwear: 0

Extreme Pressure Characteristics: 😷 😷

Corrosion Protection: • Water Resistance: •

# Requirements/Approvals:

H1 Category Code. NSF Registration No. 128802. Halal Certified No IH-648/2.4/NA/19.

# QUAKERTEK™ VERKOFOOD - COMPLEX 1

# NLGI 1

Suited for food processing and packaging industries, in order to prevent the risk of toxicity in case of incidental contact between the grease and the food or its packing. Suitable for automatic lubricating systems.

Antiwear: 🛟

Extreme Pressure Characteristics: 🔾 🗘

# Requirements/Approvals:

H1 Category Code. NSF Registration No. 150442. Halal Certified No IH-648/2.4/NA/19.

# QUAKERTEK™ VERKOFOOD - COMPLEX 2

# NLGI 2

Suited for the food and ancillary industry to prevent toxicity risk in case of accidental contact. Its anti-wear and extreme-pressure properties make it suitable for all types of bearings operating at medium/high speeds.

Antiwear: 😷

Extreme Pressure Characteristics: 🔾 🗘

# Requirements/Approvals:

H1 Category Code. NSF Registration No. 128131. Halal Certified No IH-648/2.4/NA/19.

# QUAKERTEK™ VERKOFOOD WR-2

# NLGI 2

Suited for the food and ancillary industry to prevent toxicity risk in case of accidental contact. Its anti-wear and extreme-pressure properties make it suitable for lubricating knuckles and bearings operating at medium/ high temperatures.

Antiwear: 🛟

Extreme Pressure Characteristics: 😷 😷

Corrosion Protection: 🖰 😷 Water Resistance: 🛟 🗘

# Requirements/Approvals:

H1 Category Code. NSF Registration No. 128130. Halal Certified No IH-648/2.4/NA/19.

# QUAKERTEK™ VERKOFOOD SC-1

# NLGI 1

Recommended for lubricating bearings, knuckles and sliders where an eventual contact between the lubricant and the foodstuff may not be excluded. Specifically designed for lubricating pelletizer presses and animal feed granulators.

Antiwear: 🛟

Extreme Pressure Characteristics: 🔾 🛟

Corrosion Protection: 🔾 🗘 🗘

Water Resistance: • •

# Requirements/Approvals:

H1 Category Code. NSF Registration No. 142009. Halal Certified No IH-648/2.4/NA/19.

# **Typical Values**

PRODUCT	DROPPING POINT (°C)	BASE FLUID TYPE	BASE FLUID VISCOSITY (mm²/s at 40°C)	OPERATING TEMPERATURE (°C)	COLOUR	SOLID LUBRICANTS	DIN 51.502 DESIGNATION
QUAKERTEK™ VERKOFOOD-COMPLEX 00		Mineral + polymer	150	-20 to +130	White	YES	GPF 00K-20
QUAKERTEK™ VERKOFOOD-COMPLEX 0	250	Mineral + polymer	150	-20 to +130	White	YES	GPF 0K -20
QUAKERTEK <sup>TM</sup> VERKOFOOD-COMPLEX 1	260	Mineral + polymer	150	-20 to +130	White	YES	KPF 1K -20
QUAKERTEK™ VERKOFOOD-COMPLEX 2	270	Mineral + polymer	150	-20 to +130	White	YES	KPF 2K -20
QUAKERTEK™ VERKOFOOD WR-2	270	Synthetic	86	-40 to +130	White	YES	KPFHC 2K -40
QUAKERTEK™ VERKOFOOD SC-1	245	Synthetic	150	-40 to +120	White	YES	KPFHC 1K -40

# **CALCIUM SULPHONATE**

# QUAKERTEK™ VERKOMAX FGM-2

# NLGI 2

Especially developed to lubricate ball and roller bearings, guides, sliding surfaces, ball joints, gaskets and retainers of food and beverages processing machinery. Recommended to lubricate pelletizers, dryers, digesters and any machines whose operation combines the presence of aggressive fluids, whether liquid or gaseous, high temperature and strong loads.

Antiwear: 🗘 🗘

Extreme Pressure Characteristics: 🗘 🗘 🗘

H1 Category Code. NSF Registration No. 151144.

Halal Certified No IH-648/2.4/NA/19.

# QUAKERTEK™ VERKOMAX FGM-502

#### NLGI 2

Excellent behaviour against shock loading, vibrations and "fretting". It is particularly effective in environments with high moisture and/or water contact. It maintains its mechanical stability in the most adverse conditions of load, moisture and temperature.

Antiwear: 🗘 🗘

Extreme Pressure Characteristics: 🔾 🗘 🗘

Requirements/Approvals:

H1 Category Code. NSF Registration No. 160770.

Halal Certified No IH-648/2.4/NA/19.

# **Typical Values**

PRODUCT	DROPPING POINT (°C)	BASE FLUID TYPE	BASE FLUID VISCOSITY (mm²/s at 40°C)	OPERATING TEMPERATURE (°C)	COLOUR	SOLID LUBRICANTS	DIN 51.502 DESIGNATION
QUAKERTEK™ VERKOMAX FGM-2	300	Mineral + polymer	150	-30 to +140	Beige	NO	KP 2N -30
QUAKERTEK™ VERKOMAX FGM-502	300	Mineral + polymer	500	-30 to +140	Beige	NO	KP 2N -30

# **VASELINE BASED GREASES**

# **MERKUR-55**

# NLGI 4

Solid paraffin with medicinal qualities for use in cosmetics, pharmaceuticals, food processing, textile, veterinary and packaging industries.

# **Typical Values**

PRODUCT	DROPPING POINT (°C)	BASE FLUID TYPE	BASE FLUID VISCOSITY (mm²/s at 40°C)	OPERATING TEMPERATURE (°C)	COLOUR	SOLID LUBRICANTS	DIN 51.502 DESIGNATION
VASELINA MERKUR-55	65	Vaseline		0 to +60	White	NO	

# **AEROSOLS**

# **POLYMERIC**

# QUAKERTEK™ CADENAS-WT

Lubricating gel especially suited for lubricating wire ropes and gear, drive and conveyor chains operating at room temperature.

Antiwear: 🗘 🗘 🛟

Extreme Pressure Characteristics: 🔾 🗘 🗘

Corrosion Protection: •• Water Resistance: ••

# **Typical Values**

PRODUCT	DROPPING POINT (°C)	BASE FLUID TYPE	BASE FLUID VISCOSITY (mm²/s at 40°C)	OPERATING TEMPERATURE (°C)	COLOUR	SOLID LUBRICANTS	DIN 51.502 DESIGNATION
QUAKERTEK™ CADENAS-WT		Mineral	475	-10 to +100	Yellow	YES	

# **ALUMINIUM COMPLEX**

# QUAKERTEK™ VERKOFOOD-WRT

Suited for inaccessible lubrication points or bare surfaces. Can be applied in drying and sterilizing mechanisms operating at medium-high temperatures. H1-rated product designed for the food and ancillary industry to prevent toxicity risk in case of accidental contact.

Antiwear: 🗘 🗘

Extreme Pressure Characteristics: 🔾 🗘

Corrosion Protection: 🔾 🗘

Water Resistance: 🗘 🗘

Requirements/Approvals:

H1 Category Code. NSF Registration No. 137192.

# **QUAKERTEK™ COBERTONE**

Lubricant for open gears, rollers, mining, cables and roller bridges.

Antiwear: 🔾 🗘

Extreme Pressure Characteristics: 🔾 🗘 🗘

Corrosion Protection: 🖰 😯 Water Resistance: 🗘 🗘

# **Typical Values**

PRODUCT	DROPPING POINT (°C)	BASE FLUID TYPE	BASE FLUID VISCOSITY (mm²/s at 40°C)	OPERATING TEMPERATURE (°C)	COLOUR	SOLID LUBRICANTS	DIN 51.502 DESIGNATION
QUAKERTEK™ VERKOFOOD-WRT		Synthetic	86	-40 to +140	White	YES	
QUAKERTEK™ COBERTONE		Mineral + polymer	1500	-10 to +120	Black	YES	

# **DRY LUBRICANT**

# QUAKERTEK™ MOLYBLACK

Especially designed for lubricating sliding tracks and gates, bearings, chains, threads, valves, axles, screws, etc. allowing for diverse applications in the steel, papermaking, cement, power and textile industries.

Antiwear: 😷

Extreme Pressure Characteristics: 😷

Corrosion Protection: 😷

Water Resistance: 🛟

# **Typical Values**

PRODUCT	DROPPING POINT (°C)	BASE FLUID TYPE	BASE FLUID VISCOSITY (mm²/s at 40°C)	OPERATING TEMPERATURE (°C)	COLOUR	SOLID LUBRICANTS	DIN 51.502 DESIGNATION
QUAKERTEK™ MOLYBLACK				-180 to +450	Grayish black	YES	

# Forward Together™

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