MAK SYNCOM

Advanced synthetic oils for rotary air compressors

MAK Syncom Oils are advanced fully synthetic oils developed for rotary vane and screw air compressors. They are formulated from high viscosity index synthetic base stocks (PAO) and high performance advanced ashless additives to deliver the highest performance lubrication. These oils have outstanding resistance to oxidation and thermal degradation. The extremely low level of deposit formation help maintain internal surface cleanliness, thereby enabling longer running periods between scheduled maintenance and oil changes. The exceptional anti-wear and corrosion protection are designed to enhance equipment life while reducing maintenance requirements. They exhibit enhanced anti-foam characteristics and excellent air release property. Lower volatility results in lower evaporation and oil carry over in the compressor. High FZG rating allows these oils to be an excellent choice for compressor systems employing gear and bearings. MAK Syncom oils are compatible with seal materials and paints normally specified for use in compressor systems.

Grades: MAK Syncom Oil range is available in the following ISO VG grades – **46** and **68**

Applications:
MAK Syncom Oil range is recommended for oil flooded or oil injected, single or multi-stage severe duty screw compressors operating on air. It is also suitable for single or two stage rotary vane compressors. They are particularly suited for severe services where mineral oils do not meet the requirements. These oils are suitable where air discharge temperatures can go in excess of 100^{O}C and provides drain cycles of up to 8000 hours under standard conditions of use. The exact oil drain interval will depend on intake air quality, duty cycle and ambient conditions. These oils may be used in high ambient temperature or high humidity conditions. MAK Syncom oils are also suitable for refrigeration compressors and in applications where a synthetic bearing and circulation oil or R&O oil is required.

Performance/ Benefits:
Outstanding Oxidation and Thermal Stability – exceptional resistance to oxidation and thermal degradation. Prevents sludge and deposit formation. Resists formation of deposits in sliding vane slots in vane compressor and on rotating components in screw compressor. Ensures longer operating life, less maintenance and reduction in operating cost.

Extra Long Oil Life – capable of providing drain interval upto 8000 hrs. This may be extended under certain conditions with proper oil condition monitoring.

Excellent Wear Protection – advanced ashless chemistry provides excellent protection to the internal metal surfaces, bearings, gears and other system components.

Excellent Demulsibility and Rapid Air Release – ensures rapid separation of water from oil. Less carryover to downstream utilities. Reduced formation of sludge and deposit. Increases system efficiency and reliability. Designed to provide rapid air release without excessive foaming to give trouble-free operation. Protects components from aeration and cavitation damage.

Low Ash and Carbon Formation – reduces deposits in discharge lines and the potential fire hazards, improves valve and compressor performance.

Increased System Reliability and Safety – by resisting thermal and chemical break down of the oil these oils minimise the risk of formation of the harmful sludge and carbonaceous deposits. These deposits in the presence of heat from the compressed air may pose fire hazard.

Specification:
- Proprietary grade

Storage & Handling:
The product should be stored inside. Keep it properly sealed to avoid contamination. Avoid freezing. Shelf life is 5 yrs. under protected storage conditions. MAK Syncom oils are fully miscible with mineral oils although dilution with mineral lubricants will markedly reduce its performance.

Health & Safety:
They are unlikely to be hazardous when properly used in recommended applications. Contamination of the oil from other oils, greases, chemicals, dirty water etc. can occur during the use. It should be avoided. Regular monitoring of the in-use product is recommended.

Bharat Petroleum Corporation Ltd.
Product and Application Development Deptt.
BPCL, "A" Installation, Sewree Fort Road, Sewree (East),
Mumbai – 400015 E-mail: MAKcustomercare2@bharatpetroleum.in Tel No.: 022-24176351

Typical Physico-Chemical Data: MAK Syncom

Characteristics	Method	46	68
Appearance	Visual	Clear & Bright	Clear & Bright
Density, g/cc @15^{O}C	ASTM D1298	0.833	0.837
Kinematic Viscosity @40^{O}C, cSt	ASTM D445	45.1	66.5
Kinematic Viscosity @100^{O}C, cSt	ASTM D445	7.7	10.7
Viscosity Index	ASTM D2270	140	151
Flash Point, COC, ^{O}C	ASTM D92	246	248
Pour Point, ^{O}C	ASTM D97	-42	-42
Copper Corrosion, 100^{O}C, 3 hrs.	ASTM D130	1a	1a
Rust Preventive Characteristics	ASTM D665	Pass	Pass
Foaming, (Tendency/ Stability), ml/ml	ASTM D892		
Sequence I		20/0	20/0
Sequence II		10/0	10/0
Sequence III		20/0	20/0
Air Release Value, minutes	ASTM D3427	3.0	4.0
FZG Rating, FLS	ASTM D5182	11	11

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