Shell Clavus Oil

Refrigerator Compressor Lubricant

Shell Clavus Oils are high quality, hydrotreated naphthenic mineral oils without additives. Specific selection of the base oil gives a range of products specially suited for the efficient lubrication of refrigerator compressors.

Applications

- ***Refrigerator compressors***
  Shell Clavus is designed for the lubrication of compressors with ammonia (R717) as refrigerant. It can also be used when hydrocarbon (e.g. R600a) are the refrigerant. It may be used with halogenated hydrocarbon (R12,R22) if Shell Clavus G is not available.
  For all refrigeration and air-conditioning applications: domestic, commercial and industrial systems with high, moderate or low evaporation temperatures.
- ***General lubrication***
  Apart from the application in refrigerators Shell Clavus can also be used for general lubrication at low temperatures.

Advice on applications not covered in this leaflet may be obtained from your Shell representative.

Performance Features and Advantages

- ***High quality base oils***
  Shell Clavus are high quality, naphthenic mineral oils without additives.
- ***Very good stability***
  The specific selection of the base oils provides in very good chemical stability in contact with ammonia as refrigerant, very good oxidative stability and in good thermal stability.
- ***Good cleanliness***
  The build up of sludge and deposits is clearly reduced.
- ***Good lubricity***
  Good lubrication properties and good low temperature fluidity.

Specification and Approvals

Shell Clavus meets the requirements of DIN 51503 KAA, KC and KE.

Health and Safety

Guidance on Health and Safety are available on the appropriate Material Safety Data Sheet which can be obtained from your Shell representative.

Protect the environment
Take used oil to an authorised collection point. Do not discharge into drains, soil or water.

Typical Physical Characteristics

Clavus							
Viscosity grade		ISO 3448	15	32	46	68	100
Refrigerator oil-group		DIN 51503	KAA , KC , KE				
Kinematic viscosity		ASTM D445					
at 40°C	mm^2/s		15	32	46	68	100
at 100°C	mm^2/s		3.1	4.6	5.6	7	8.8
Density at 15°C	kg/m^3	ASTM D1298	886	892	897	902	906
Flash point (COC)	°C	DIN ISO 2592	170	190	200	210	210
Pour point	°C	DIN ISO 3016	-48	-36	-33	-30	-27
Fluidity in U-tube	°C	DIN 51568	-38	-25	-23	-21	-18
Neutralisation number	mg KOH/g	DIN 51558-3	<0,04	<0,04	<0,04	<0,04	<0,04
Saponification number	mg KOH/g	DIN 51559-2	<0,08	<0,08	<0,08	<0,08	<0,08

These characteristics are typical of current production. Whilst future production will conform to Shell's specification, variations in these characteristics may occur.