



# Shell Clavus G

## Refrigerator compressor lubricant

Shell Clavus G are high quality, hydrotreated naphthenic mineral oils without additives, with excellent low temperature properties.

### Applications

- **Refrigerator compressors**

Shell Clavus G is designed for the lubrication of compressors with halogenated hydrocarbons as refrigerant (R12, R22). It is also suitable for use with hydrocarbons (e.g. R600a) as refrigerant. For all refrigeration and air-conditioning applications: domestic, commercial and industrial systems with high, moderate or low evaporation temperatures.

- **Ammonia as refrigerant**

Shell Clavus G should not be used in ammonia systems with low evaporation temperatures when it cannot be guaranteed that the refrigerant system is airtight.

### Performance Features and Advantages

- **High quality base oils**

Shell Clavus G are high quality, hydrotreated naphthenic mineral oils without additives.

- **Excellent stability**

The specific selection of base oils and advanced

refining techniques ensure excellent chemical stability in contact with refrigerants and very good thermal stability.

- **Very good low temperature properties**

Good lubricating properties and very good low temperature fluidity.

### Specification and Approvals

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

#### Advice

For technical advice phone your Shell Technical Adviser. For contact details see page ii in the front of this binder.

### Typical Physical Characteristics

Clavus G			46	68	100
Viscosity grade		ISO 3448	46	68	100
Refrigerator oil group		DIN 51503	KAA, KC, KE		
Kinematic viscosity		ASTM D445			
at 40°C	mm <sup>2</sup> /s		46	68	100
at 100°C	mm <sup>2</sup> /s		5.6	6.9	8,7
Density at 15°C	kg/l	ASTM D1298	0.888	0.894	0.9
Flash point (COC)	°C	DIN ISO 2592	210	220	220
Pourpoint	°C	DIN ISO 3016	-42	-39	-36
Fluidity in U-tube	°C	DIN 51568	-29	-25	-19
Floc point R 12	°C	DIN 51351	<-50	<-50	<-50
Neutralisation number		DIN 51558-3			
water-soluble acids	mg KOH/g		neutral		
water-soluble acids	mg KOH/g		<0,04		
Saponification number	mg KOH/g	DIN 51559-2	<0,08		
Insoluble in R 12 at -30°C	M-%	DIN 51590-1	<0,02		
Stability with refrigerants		DIN 51593			
R 12	h		>96		
R 22	h		>96		

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