

# SHELL REFRIGERATION OIL S2 FR-A

REFRIGERATOR COMPRESSOR LUBRICANT

PREVIOUSLY SHELL CLAVUS

DESIGNED TO MEET CHALLENGES

Shell Refrigeration Oil S2 FR-A is a low miscibility compressor lubricant intended for use in refrigeration compressors using ammonia refrigerant. It is formulated from specially refined paraffinic base oils in combination with additives selected to minimise system deposits and provide long service life.

## PERFORMANCE FEATURES

### SYSTEM EFFICIENCY

- Shell Refrigeration Oil S2 FR-A has been specially optimised for use in systems where oil separation is required. It has been designed to reduce 'light end' oil carryover; this helps minimise oil thickening in the compressor and reduces oil coating of internal evaporator surfaces thus maintaining overall system efficiency.

### EXTENDED MAINTENANCE INTERVALS

- Shell Refrigeration Oil S2 FR-A has excellent high temperature and oxidation stability providing long service life even where high compressor discharge temperatures are found.
- In addition it is formulated to provide excellent control of deposit and sludge formation, contributing to extended oil drain intervals, in comparison with conventional mineral oil based refrigerator oils.

## APPLICATIONS

### REFRIGERATOR COMPRESSORS

- Shell Refrigeration Oil S2 FR-A is recommended for use in open, semi-open and hermetic compressors in domestic, commercial and industrial refrigeration systems. It can be used in both rotary and reciprocating compressor types.

### REFRIGERANT COMPATIBILITY

- Shell Refrigeration Oil S2 FR-A is recommended for use with ammonia (R717) based refrigeration systems where it offers excellent performance, even under high compressor discharge temperatures, or down to evaporation temperatures of -30°C.
- It can also be used in systems using hydrocarbons such as propane (R290).
- Shell Refrigeration Oil S2 FR-A is not recommended for use with CFC, HCFC or HFC refrigerants such as R12, R22 or R134a.

### SEAL COMPATIBILITY

- Shell Refrigeration Oil S2 FR-A is compatible with all commonly used sealing materials designed for use with mineral oils.

### LUBRICANT COMPATIBILITY

- Shell Refrigeration Oil S2 FR-A is completely miscible with mineral oil, alkylated benzene and PAO based lubricants.

## SPECIFICATIONS, APPROVALS AND RECOMMENDATIONS

MEETS THE REQUIREMENTS OF:

- DIN 51503 KAA and KE.

## TYPICAL PHYSICAL CHARACTERISTICS

CHARACTERISTICS	
Kinematic Viscosity (ISO 3448) @ 40°C mm <sup>2</sup> /s	68
@ 100°C mm <sup>2</sup> /s	9
Refrigerator Oil (DIN 51503)	KAA, KE
Density @ 15°C kg/m <sup>3</sup> (ISO 12185)	862
Flash Point °C (COC) (ISO 2592)	232
Pour Point °C (ISO 3016)	-39
Miscibility with R290	Completely miscible with hydrocarbon based refrigerants