



# LUBENZ INDS REFRIGERATION OIL

#### DESCRIPTION

LUBENZ INDS REFRIGERATION OIL are high performance lubricants formulated from extremely low wax naphthenic oil primarily intended for use in refrigeration compressors where an uninhibited oil is required. It is recommended for use in refrigeration compressors using ammonia, CFC (chlorofluorocarbon) and HCFC (hydrochloro-fluorocarbon) refrigerants where the evaporator temperature ranges down to approximately -35°F or -37°C. It is compatible with most refrigerants except sulphur dioxide & are not recommended for use with HFC (hydroflurocarbon) refrigerants.

## **APPLICATIONS**

LUBENZ INDS REFRIGERATION OIL are designed specifically for cylinder and bearing lubrication in most conventional refrigeration compressors and for other machinery operating at sub-zero temperatures. Typical applications include large industrial reciprocating and rotary refrigeration compressors, industrial applications such as food freezing and cold storage plants, marine refrigeration applications. Used primarily with ammonia refrigerant, but also used with selected halocarbons.

### **PROPERTIES**

LUBENZ INDS REFRIGERATION OIL have low pour points and excellent fluidity at very low temperatures by virtue of being almost wax-free, consequently, use of these oils helps to ensure that evaporator tubes are kept clean to improve heat transfer and to reduce downtime for maintenance. They have good chemical stability and are suitable both for cylinder and bearing lubrication. Moisture content is very low, so every precaution should be taken to keep them dry. This helps prevent the risk of ice formation in expansion valves and limits the risks of oil degradation and copper plating.

## **PRODUCT BENEFITS**

- Low wax content
- Long service life resulting in less downtime and lower maintenance costs
- LOW FOAM releases dissolved refrigerant without foaming excessively.
- LOW FLOC POINT free of wax and materials that could separate out at low temperature.

## **RECOMMENDATIONS / SPECIFICATIONS**

- Good chemical and thermal stability
- Enhances the efficiency of the refrigerating equipment
- Protects the different components of the refrigerating loop
- Excellent low temperature flow and evaporator heat transfer for optimum system efficiency
- Multi-purpose lubricants

## Meets or exceeds the requirements of: AMMONIA, CFC AND HCFC SYSTEMS

| TYPICAL TECHNICAL PROPERTIES                   |         |         |         |
|--|---------|---------|---------|
| ISO Viscosity Grade                            | 32      | 46      | 68      |
| Product code                                   | 12581IL | 12582IL | 12583IL |
| Density at 15°C, g/ml, ASTM D4052              | 0.91    | 0.91    | 0.91    |
| Kinematic Viscosity at 40 °C, mm²/s, ASTM D445 | 32.0    | 46.0    | 68.0    |
| Flash Point(COC), °C, ASTM D92                 | 190     | 196     | 200     |
| Pour Point, °C, ASTM D97                       | -42     | -39     | -36     |
| Total Acid Number, ASTM D 974, mg KOH/g        | 0.01    | 0.01    | 0.01    |
| Flocculation Point, R 12, DIN 51351, °C        | -36     | -36     | -31     |

Note: These characteristics are typical of current production. While future production will conform to LUBENZ INDS REFRIGERATION OIL specification, variations in these characteristics may occur.