



Aircol™ CL 1400 Range

Compressor Oils

Description

Castrol Aircol™ CL 1400 and CL 1400 S (previously called Enersyn CL 1400 and CL 1400 S) are PAG based products specially designed for lubricating the "hypercompressors" used in the production of low density polyethylene (LDPE) and the other related copolymers.

Unlike white oil or PIB type products, Aircol CL 1400 and CL 1400 S are capable of preventing the well known problem of pre-polymerisation in the compressors. Aircol CL 1400 and CL 1400 S have much lower ethylene gas solubility, which not only improves the lubrication of the compressor but also reduces oil consumption significantly (over 50% reduction in oil consumption can be achieved when changing from white oil/PIB products to Aircol CL 1400 and CL 1400 S).

The viscosity-pressure characteristics of Aircol CL 1400 and CL 1400 S mean that these products tend to flow better in high pressure lubricant lines of the hypercompressors, particularly at low temperature. The superior load carrying and lubricity properties also helps to minimise wear on the compressor. Typical oil life under normal operating conditions is in the range of 20,000 to 40,000 hours.

Application

Aircol CL 1400 and CL 1400 S are suitable for use in the final stage of the high reciprocating compressors employed in the production of low density polyethylene or similar processes, where ethylene gas feedstock can be compressed up to 3500bars.

Aircol CL 1400 is suitable for basic LDPE production whereas Aircol CL 1400 S (with enhanced oxidation stability and corrosion protection) is preferred for use in the production of copolymers where aggressive feedstock such as vinyl acetate might be present. In addition, Aircol CL 1400 S also helps to prevent the well known problem of pre-polymerisation in the compressor and heat exchange unit, and therefore will improve the system cleanliness and reduce the loss of feedstock.

Both products meet the requirements of major compressor manufacturers.

Advantages

When compared to traditional products such as those based on white oil or PIB type, Aircol CL range offers the following advantages:-

- Capable of preventing pre-polymerisation in compressors
- Low solubility for ethylene gas - improves lubricity in compressors and reduces oil consumption
- Improved flow properties at high pressure and low temperature
- Superior load-carrying and lubricity - enhances wear protection and prolongs compressor life
- Long oil life

Typical Characteristics

Name	Method	Units	CL 1400	CL 1400 S
Density @ 20°C / 68°F	ISO 12185 / ASTM D4052	kg/m ³	1090	1090
Kinematic Viscosity @ 40°C / 104°F	ISO 3104 / ASTM D445	mm ² /s	270	275
Viscosity Index	ISO 2909 / ASTM D2270	-	220	220
Pour Point	ISO 3016 / ASTM D97	°C/°F	-7/19	-7/19
Flash Point - open cup method	ISO 2592 / ASTM D92	°C/°F	230/446	230/446

Subject to usual manufacturing tolerances.

Storage

All packages should be stored under cover. Where outside storage is unavoidable drums should be laid horizontally to avoid the possible ingress of water and the obliteration of drum markings. Products should not be stored above 60°C, exposed to hot sun or freezing conditions.

This product was previously called Enersyn CL 1400 and 1400 S. The name was changed in 2015.

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