

CompStar Ester Series

Fully Synthetic Refrigeration Oils Based on Polyol Ester (POE)

CompStar®

Description

CompStar Ester Series are synthetic polyol esters (POE) lubricants formulated specifically for use in refrigeration and air-conditioning compressors with HFC refrigerants.

These products provide effective wear protection for bearing surfaces, increased system life and improved efficiency, and are suitable for both initial fill and service fill.

The combination of low temperature characteristic and unparalleled chemical and thermal stability enable the use of these products over wide operating temperature ranges

Application

The CompStar Ester products are perfectly suited for all refrigeration circuits in which chlorine-free refrigerants (HFCs / FCs),

Can be used in various compressors such as reciprocating, rotary, scroll, screw compressors.

Comprehensive tests have been performed on the use of CompStar Ester products with new refrigerants designed to replace R22, such as R422A/D and R417A.

Properties

Superior wear protection for reliability

Chemical stability to extend service life, reducing maintenance costs.

Great thermal stability, does not accumulate excessive carbon deposits at high temperature parts such as discharge valves.

Typical Analysis

Analysis	Method	Unit	CompStar	CompStar	CompStar	CompStar	CompStar
			ESTER 22SL	ESTER 32SL	ESTER 46SL	ESTER 68SL	ESTER 100SL
Viscosity @ 40°C	ASTM D 445	cSt	21.7	33.1	49.5	66.3	100
Viscosity @ 100°C	ASTM D 445	cSt	4.5	5.7	6.9	8.9	11.45
Density @ 15°C	ASTM D 4052	g/cm ³	0.99	0.97	0.94	0.96	0.975
Pour Point	ASTM D 97	°C	-60	-52	-45	-43	-33
Flash Point COC	ASTM D 92	°C	232	240	235	263	261
Acid Value	ASTM D 974	mgKOH/g	<0.05	<0.05	<0.05	<0.05	<0.05
Water Content	ASTM D1533	PPM	<50	<50	<50	<50	<50

*These values are not intended for use in preparing specification

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Analysis	Method	Unit	CompStar	CompStar	CompStar	CompStar	CompStar
			ESTER 120SL	ESTER 150SL	ESTER 170SL	ESTER 220SL	ESTER 320SL
Viscosity @ 40°C	ASTM D 445	cSt	127.7	168	175.2	233.3	320
Viscosity @ 100°C	ASTM D 445	cSt	12.7	20.2	16.5	18.4	32.5
Density @ 15°C	ASTM D 4052	g/cm ³	0.95	1.01	0.96	0.95	1.04
Pour Point	ASTM D 97	°C	-33	-43	-30	-27	-28
Flash Point COC	ASTM D 92	°C	251	290	265	268	271
Acid Value	ASTM D 974	mgKOH/g	<0.05	<0.05	<0.05	<0.05	<0.05
Water Content	ASTM D1533	PPM	<50	<50	<50	<50	<50

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Package

4L/20L/200L

Simplified Lubricant/Application Selection

This application guide covers only a few of the many possible lubricants for specific application. Consult CompStar for specific information on our complete product line.

CompStar® Ester Series								
	ESTER 22SL	ESTER 32SL	ESTER 46SL	ESTER 68SL	ESTER 100SL	ESTER 170SL	ESTER 220SL	ESTER 320SL
RECIPROCATING	○	○	○	○				
CENTRIFUGAL	○	○	○	○				
ROTARY		○	○	○	○	○		
SCREW		○	○	○	○	○	○	○
SCROLL		○	○	○				