

# GreensCare 68

## Biodegradable Hydraulic Fluid

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Manufactured exclusively for Jacobsen, A Textron Company, by

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### Description

GreensCare 68 Hydraulic Fluid is a readily biodegradable, non-hazardous ISO 68 / SAE 5W40 viscosity grade hydraulic oil for use in general purpose hydraulic systems. GreensCare 68 is based on natural ester technology and is a direct replacement for petroleum oil based hydraulic fluids. GreensCare 68 is approved against Jacobsen and Cushman requirements and meets or exceeds the requirements of Ransomes, Toro, Deere and others. The product demonstrates excellent low and high temperature viscosity performance and has superior anti-wear characteristics.

### Typical Properties

Flash Point, C	ASTM D-92	>250°
Specific Gravity, 60° F	ASTM D-1298	0.92
Kinematic Viscosity @ 40° C, cSt	ASTM D-445	61.2 – 74.8 (ISO 68)
Kinematic Viscosity@100C, cSt	ASTM D-445	12.5 – 16.3
Viscosity Index	ASTM D-2270	215
Pour Point	ASTM D-97	-36°C
Brookfield viscosity @ -30° C, cPs	ASTM D-2983	6200

### Performance Properties

Foam, Sequence I, II, III	ASTM D-892	Pass
Copper Corrosion, 3 hours @ 100° C	ASTM D-130	1a
Hydrolytic stability,	ASTM D-2619	

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Copper loss / appearance/ NNA	0.09 / 1b / 5.0
<b><u>Performance Properties (Cont'd)</u></b>	
Filterability, seconds	
A.) without water, 600 max	127.6
Rust, ASTM D-665 A (Distilled Water)	Pass
Rust, ASTM D-665 B (Synthetic Sea Water)	Pass
Demulsibility ASTM D-1401	
oil / water / emulsion (minutes)	40-40-0 (20)
<b><u>Wear Performance</u></b>	
Four Ball Wear, ASTM D-4172	
1 hr., 167° F, 1800 rpm, 40 kg., scar mm.	0.42
Timken Wear, ASTM D-2782	
OK Load, lbs.	40 - 50
Hydraulic Pump Test, ASTM D-2882	
mg. wt. loss, ring and vanes	3.8
<b><u>Oxidative Stability</u></b>	
Oxidative Stability, ASTM D-2272	
RBOT, min. to 25 psi loss	80 - 100
Static Oxidation Test	
168 hrs. @ 150° C	
condition of beaker	clean
<b><u>Biodegradability</u></b>	
Biodegradability (%)	
CEC L-33 T-82	93
OECD 301B	>60