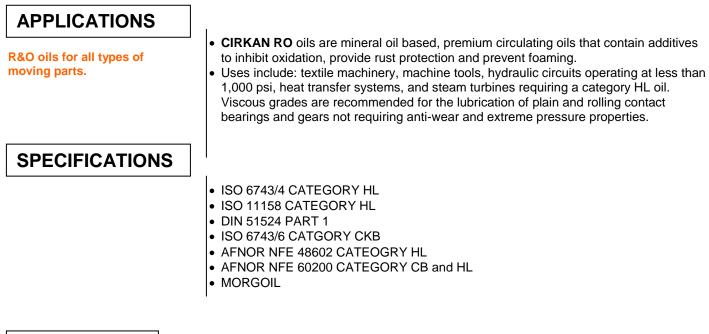




## R and O Machine Oil



## **ADVANTAGES**

- High natural viscosity index
- Good compatibility with elastomers and seals
- Excellent demulsification properties
- Excellent anti-foaming, anti-corrosion, and anti-oxidation properties

TYPICAL CHARACTERISTICS	CIRKAN RO									
	10	22	32	46	68	100	150	220	320	460
Viscosity at 40°C, cSt	10.0	22.0	32.0	46.0	68.0	100.0	150.0	220.0	320.0	460.0
Viscosity at 100°C, cSt	2.7	4.3	5.4	6.8	8.7	11.6	14.4	18.4	23.3	28.9
Viscosity Index	> 95	> 95	> 95	> 95	> 95	> 95	> 95	> 95	> 95	> 95
Density @ 60°F, lbs./gal.	7.14	7.20	7.25	7.28	7.30	7.35	7.38	7.42	7.45	7.44
Specific Gravity @ 60/60°F	0.855	0.863	0.868	0.872	0.874	0.880	0.884	0.889	0.893	0.891
Pour Point, <sup>o</sup> F	-10	0	0	5	-28	5	5	10	10	15
Flash Point, COC, <sup>o</sup> F	330	390	405	415	420	430	440	475	515	570
Copper Strip Corrosion	1B	1B	1B	1B	1B	1B	1B	1B	1B	1B

## **CIRKAN RO 100 & 150 Meets MORGOIL SPECIFICATION**

MORGOIL Specification									
······			<b>CIRKAN RO</b>						
	ASTM D								
Viscosity Index	2270								
ISO 460 or less		90min.	>95						
ISO 680		85min.	>95						
	ASTM D								
Demulsibility	2711								
Free water		30ml min.	30ml						
% free water in oil		1.5%max	1.5						
Emulsion		1.0ml max.	1.0						
Demulsibility	ASTM D 1401								
	1401								
ISO 68 or lowerat 54C									
at 82C		40-37-3	40-37-3						
ISO 32 - 220		(20min)	(15min)						
100 52 220		40-37-3	40-37-3						
ISO 320 - 460		(40min)	(15min)						
		40-37-3	40-37-3						
ISO 680 - 1000		(50min)	(15min)						
Pour point	ASTM D 97								
ISO 460 lower		minus 6C	minus 15C						
ISO 680 higher		0C	minus 10C						
Foam	ASTM D 892								
Seq I	/ 10/11/ 2 002	150 - 0	50 -0						
Seq II		100 0	30 0						
Seq III									
Rust, distilled water	ASTM D 665	Pass	Pass						
Flash point	ASTM D 92	195C, min.	215C, min						
Copper corr., 3hrs @		,	,						
100C	ASTM D 130	1a-b	1a-b						
Neutralization #	ASTM D 974	Report	0.27						

## **TOTAL Specialties USA, Inc.**

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CIRKAN 6-2016

This lubricant must be applied as recommended and used for the application for which it was designed. TOTAL Specialties USA, Inc. will have no responsibility for any injury to persons or property resulting from misuse or misapplication of the lubricant. A safety data sheet conforming to the OSHA Hazard Communication Standard 29 CFR Section 1910.1200 can be downloaded at www.totalspecialties.com. Copyright 2016 All rights reserved.