

****CERTIFICATE of QUALITY****

Control No: 2551/2006

Draw certificate date:

02/10/06

Publish date:

16/02/07

For:

Packing, Tank

Reservoir: 15V028

2548

Batch:

LOTOS DIESEL CLASSIC CF-4 SAE 15W/40

V

Lp.	PROPERTY	TEST METHOD	UNITS	RESULTS
1	Viscosity at 100 C	EN-ISO 3104:1999	mm ² /s	15.3
2	Pour Point	ASTM D 5950-02	deg C	-30
3	Flash Point COC	ASTM D 92-02b	deg C	238
4	Density, at 15 deg C	EN ISO 12185:1996	g/cm ³	0.8866
5	Viscosity CCS temp. -20 C	ASTM D 5293	mPa*s	6400
6	Viscosity at 40 C	ASTM D 445-04	mm ² /s	117.00
7	Viscosity HTHS at 150 C (at 10 ⁶ s ⁻¹)	ASTM D 4741	mPa*s	4.23
8	Shear Stability	IP 294		
	-Visc.kinem.temp.100C, 30 Shear Cycles	ASTM D 445-04	mm ² /s	13.46
9	Viscosity Index	ASTM D 2270-04		136
10	Water	ASTM D 95-99		none
11	Total Base Number (TBN)	ASTM D 2896-03	mg KOH/g	11.52
12	Sulfated Ash	ASTM D 874-00	% wt	1.46
13	Corrosion action Cu in 120 deg C 3 h	ASTM D 130-04	deg Cor.	1
14	Evaporation loss Noack	DIN 51581	% wt	9.1
15	Foaming	ASTM D 892		
	-tendency at 25 deg C		ml	0
	-tendency at 95 deg C		ml	20
	-tendency at 25 deg C ex 95 deg C		ml	0
16	Stability -10 min.	ASTM D 892		
	-at 25 deg C		ml	0
	-at 95 deg C		ml	0
	-at 25 deg C ex 95 deg C		ml	0
17	Calcium	DIN 51391 T-1	% wt	0.343
18	Zinc	DIN 51391 T-1	% wt	0.116
19	Colour	ASTM D 1500-04		2.5

Certificate of Quality may be duplicated only as a whole.

Test were run in LOTOS Lab Sp. z o.o.

Product does meet requirements of the contract: WT 7/03 wyd.4

Confirm certificate - name: :I.Ruczyńska

Publish certificate - name: :S.Gliwiński