

****CERTIFICATE OF QUALITY****

Control No: 104/2007

Draw certificate date:

13/01/07

Publish date:

16/02/07

For:

Packing, Tank

Reservoir: 15S010

002

Batch:

LOTOS SL/CF 15W/40

V

Lp.	PROPERTY	TEST METHOD	UNITS	RESULTS
1	Viscosity at 100 C	EN-ISO 3104:1999	mm ² /s	14.30
2	Pour Point	ASTM D 5950-02	deg C	-30
3	Flash Point COC	ASTM D 92-02b	deg C	240
4	Density, at 15 deg C	EN ISO 12185:1996	g/cm ³	0.8858
5	Viscosity CCS temp. -20 C	ASTM D 5293	mPa*s	6470
6	Viscosity at 40 C	ASTM D 445-04	mm ² /s	108.60
7	Viscosity HTHS at 150 C (at 10 ⁶ s ⁻¹)	ASTM D 4741	mPa*s	3.84
8	Shear Stability	IP 294		
	-Visc.kinem.temp.100C, 30 Shear Cycles	ASTM D 445-04	mm ² /s	12.58
9	Viscosity Index	ASTM D 2270-04		134
10	Water	ASTM D 95-99		none
11	Total Base Number (TBN)	ASTM D 2896-03	mg KOH/g	7.00
12	Sulfated Ash	ASTM D 874-00	% wt	0.95
13	Calcium	DIN 51391 T-1	% wt	0.198
14	Magnesium	DIN 51431	% wt	0.015
15	Phosphorus	ASTM D 1091	% wt	0.145
16	Zinc	DIN 51391 T-1	% wt	0.163
17	Copper corrosion	ASTM D 130-04	Class	1
18	Evaporation loss Noack	DIN 51581	% wt	10.4
19	Foaming	ASTM D 892		
	-tendency at 25 deg C		ml	0
	-tendency at 95 deg C		ml	10
	-tendency at 25 deg C ex 95 deg C		ml	0
20	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

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 7/05 wyd.1

Confirm certificate - name: :J.Lendasz

Publish certificate - name: :S.Gliwiński