

**\*\*CERTIFICATE OF QUALITY\*\***

Control No: 3122/2006

Draw certificate date:

29/11/06

Publish date:

16/02/07

For:  
Packing, Tank  
Reservoir: 15V027  
Batch: 002

LOTOS TRAFFIC TURBODIESEL 5W/40

V

Lp.	PROPERTY	TEST METHOD	UNITS	RESULTS
1	Viscosity at 100 C	EN-ISO 3104:1999	mm <sup>2</sup> /s	14.06
2	Pour Point	ASTM D 5950-02	deg C	-39
3	Flash Point COC	ASTM D 92-02b	deg C	224
4	Density, at 15 deg C	EN ISO 12185:1996	g/cm <sup>3</sup>	0.8510
5	Visc.CCS at -30 C	ASTM D 5293	mPa*s	5780
6	Viscosity at 40 C	ASTM D 445-04	mm <sup>2</sup> /s	82.70
7	Viscosity HTHS at 150 C (at 10 <sup>6</sup> s <sup>-1</sup> )	ASTM D 4741	mPa*s	4.00
8	Shear Stability	IP 294		
	-Visc.kinem.temp.100C, 30 Shear Cycles	ASTM D 445-04	mm <sup>2</sup> /s	12.97
9	Viscosity MRV at -35 C	ASTM D 4684	mPa*s	22000
10	Viscosity Index	ASTM D 2270-04		176
11	Water	ASTM D 95-99		none
12	Total Base Number (TBN)	ASTM D 2896-03	mg KOH/g	10.21
13	Sulfated Ash	ASTM D 874-00	% wt	0.95
14	Calcium	DIN 51391 T-1	% wt	0.328
15	Phosphorus	ASTM D 1091	% wt	0.092
16	Zinc	DIN 51391 T-1	% wt	0.102
17	Corrosion action Cu in 120 deg C 3 h	ASTM D 130-04	deg Cor.	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	20
	-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 41/05 wyd.1

Confirm certificate - name: :I.Ruczyńska

Publish certificate - name: :S.Gliwiński