

## PACKAGE OF ADDITIVES PA-2503-1

Specification BY 390401182.028-2011	A multipurpose cascade package of additives for passenger car and heavy diesel crankcase oils.		
Main benefits	The package of additives provides requirements for passenger car and heavy diesel engines, protection of engine valve train components. Good protection against wear of bearing and cylinder liners.		
Use recommendations	Treat rate*, % wt.		
SF/CC	4.2 %		
SF/CD	4.5 %		
SG/CD	4.0 % + 2.2 % PA-4501**		
SJ/CF	3.7 % + 4.0 % PA-4501		
CF-4/SG	5.5 % + 1.8 % PA-4501***		
SD/CB	3.3 % + 0,3 % LUKOIL DF-11K		
* - in combination with viscosity improver and pour point depressant ** - equivalent 6.2 % wt. PA-2503-2 *** - equivalent 7.3 % wt. PA-2503-3			
Some physical and chemical properties			
Characteristics	Minimum	Typical value	Maximum
Kinematic viscosity at 100 °C, mm <sup>2</sup> /sec. (cSt)	-	50.0	150.0
Flash point (COC), °C	170	225	-
Total base number (TBN), mg KOH/g	140	152	-
Calcium content, % wt.	4.80	5.30	-
Zinc content, % wt.	1.90	2.00	-
Nitrogen content, % wt.	0.45	0.57	-
Sulfate ash content, % wt.	-	21.0	22.0
Condition of usage	Recommended solution temperature of package of additives in base oil is up to 70 °C. Any devices providing uniformity of stirring of package of additives in base oil can be used for dissolving. Shelf life at ambient temperature – 12 months.		
Safety requirements	Before usage the product please read material safety data sheet (MSDS) of the product.		