

## PACKAGE OF ADDITIVES PA-4501

Specification BY 390401182.025-2011	Top tier a multipurpose cascade package of additives for crankcase oils.		
Main benefits	Excellent protection against wear of bearing and cylinder liners. Excellent protection of engine valve train components. The highest level of prevention against damaging deposits on engine elements.		
Use recommendations	Treat rate*, % wt.		
SL/CF	11.1 %		
SJ/CF	4.0 % + 3.7 % PA-2503-1		
SG/CD	2.2 % + 4.0 % PA-2503-1**		
CF-4/SG	1.8 % + 5.5 % PA-2503-1***		
* - 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)	-	60.0	120.0
Flash point (COC), °C	170	215	-
Total base number (TBN), mg KOH/g	70	95	-
Calcium content, % wt.	2.40	2.75	-
Zinc content, % wt.	0.90	0.95	-
Nitrogen content, % wt.	0.60	0.80	-
Sulfate ash content, % wt.	-	11.0	11.7
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.		