The quality of mazut M100 delivered from Refineries in Kazakhstan

Component	CHIMKENT M100 Grade I	ATYRAU M100 Grade II	PAVLODAR M100 Grade III - IV
ACCORDING TO GOST 10585-99			
The temperature of solidification, not higher °C	42	42	25
Kinematics viscosity at 100°C not higher	6.8	6.8	6.8
Ash content, not more %	0.05	0.05	0.14
Mechanical impurities, lower than %	1.0	1.0	1.0
Water content, not higher than %	1.0	1.0	1.0
Water dissoluble acids (alkalinity)	Absent	Absent	Absent
Mass fraction of sulphur, not more %	0.5	1.0	2.0
Temperature of flash in the open crucible °C, not less than	110	110	110
Heat of combustion (the lowest) recalculated for solid fuel k Joul/kg, not less than	40530	40530	40530
Density at 20 °C , kg/m3	Not standardized, Must be defined	Not standardized, Must be defined	Not standardized, Must be defined
TYPICAL ACCORDING TO ASTM			
Density at 20°C, kg/m2	937.3		986.0
Density at 15°C, kg/m2	940.4		
Water, %, mass	0.06-0.10		0.30
Sediments by extraction by GOST, %, mass	0.023-0.024		
Kinematic viscosity at 80°C, mm2/ c	83.76		26.99
Kinematic viscosity at 50°C, mm2/ c	413.0-582.8		100.3
Engler viscosity at 80°C, E deg.	11.1		
Pour Point, °C	+36 to +39		
Sulphur, %, mass	0.329-0.361		1.784
Flash point by PMCC, °C	109-116		
Bromine number (cut 360,0 °C), g Br/100g	9		14
P – value	2.2		4.5
Xylene equivalent	27		22
Toluene equivalent	29		21
Hot filtration:			

Existent, %, mass	0.54		
Accelerated, %, mass	0.60		0.02
Potential, %, mass	0.021-0.56		
Conradson Carbon residue, %, mass	5.1		
Ash, %, mass	0.030-0.048		0.030
Asphaltenes, %, mass	3.1		
Content of Silicon, ppm	2		11.0
Content of Aluminium, ppm	1		14.0
Content of Vanadium, ppm	2		45.0
Content of Sodium, ppm	20		
Content of Nickel, ppm	35		
Nitrogen, mass %	0.35		
Vacuum distillation, °C:			
IBP	277.0		250.0
5%	375.0		279.0
10%	413.0		322.0
20%	483.0		379.0
30%	508.0		418.0
40%			495.0
50%			
60%			
70%			
80%			
FBP	542.0		535.0
Recovery, %V	35.0		
Residue, %V	65.0		
Loss, %V			
Onset of cracking			