



Batch № 110

Manufacturing date: 04.05.23

Batch net weight: 4,476 t

Product Characteristics

№	Characteristics and units	Standard limits	Actual	Test method
1	Appearance	Uniform grease with color between light-yellow and brown	Uniform grease with yellow color*	P. 7.2
2	Dropping point, °C, not lower than	185	208	GOST 6793
3	Penetration at 25°C, 0,1 mm, in range	220 - 250	245	GOST 5346, method V
4*	Viscosity at -20°C and velocity gradient of 10 s-1, Pa*s (P), not more than	650 (6500)	612 (6120)	GOST 7163
5*	Viscosity at 0°C and velocity gradient of 10 s-1, Pa*s (P), not more than	280 (2800)	214 (2140)	GOST 7163
6*	Viscosity at 50°C and velocity gradient of 100 s-1, Pa*s (P), not less than	8,0 (80)	10,9 (109)	GOST 7163
7	Shear stability at 20°C, Pa (gs/cm ²), in range	500 (5,0) - 1 000 (10,0)	686 (6,86)	GOST 7143, method B
8	Shear stability at 80°C, Pa (gs/cm ²), not lower than	200 (2,0)	289 (2,89)	GOST 7143, method B
9	Colloid stability, %, of separated oil, not more than	12,0	11,14	GOST 7142
10	Metal corrosion	Pass	Pass	GOST 9.080 and P. 7.3
11	Vaporability at 120 °C, %, not more than	6,0	1,0	GOST 9566
12	Free alkali content NaOH, %, not more than	0,1	0,06	GOST 6707
13	Water content	nil	nil	GOST 2477 and P. 7.4
14	Mechanical impurities content, %, not more than	0,03	nil	GOST 6479 and P. 7.5
15	Four ball EP test machine (20±5°C): scuff index, N (kgs), not less than	274 (28)	323 (33)	GOST 9490
16	Four ball EP test machine (20±5°C): welding load, N (kgs), not less than	1381 (141)	1568 (160)	GOST 9490
17	Four ball EP test machine (20±5°C): critical load, N (kgs), not less than	617 (63)	735 (75)	GOST 9490
18*	Elastomer of grade 26-44, %: volume change	±8	-1,8	GOST 9.030 and P. 7.6
19*	Elastomer of grade 26-44, %: hardness change	±8	-3,4	GOST 9.030 and P. 7.6

*As agreed by the parties

Manufactured by KSM PROTEC LLC

Conclusion: Litol-24 Lubricating Grease lubricating grease sample satisfies the requirement of DSTU GOST 21150:2019 standard based on characteristics and

Laboratory technician

Laboratory head

Date of issue: 05.05.23



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CERTIFICATE OF ANALYSIS № 532

Motor oil TEMOL Turbo Diesel (M-10DM)

TU U 23.2-30858281-007:2008 zm.1,2,3,4

Batch №532

SAE 30

API CD

Manufacturing date: 21.05.22

Batch net weight: 18,5 t

Product Characteristics

№	Characteristics and units	Standard limits	Actual	Test method
1	Kinematic viscosity at 100°C, cSt, in range	9,3-12,5	12,18	DSTU GOST 33 or ASTM D445
2	Viscosity Index, not lower than	90	94	DSTU GOST 25371 or ASTM D2270
3	Total base number, mg KOH per 1 g, not lower than	8,2	9,84	DSTU 5094 or ASTM D2896 or ISO 3771
4	Sulfated ash, %, not lower than	1,50	1,26	DSTU GOST 12417 or ASTM D874
5	Flash point (COC), °C, not lower than	220	242	DSTU GOST 4333 or ASTM D92
6	Pour point, °C, not more than	-18	-21	GOST 20287 method B or ASTM D97
7	Density at 20 °C, kg/m ³ , not more than	905	892	GOST 3900 or ASTM D1298
8	Mechanical impurities content, %, not more than	0,025	0,018	GOST 6370 or ASTM D2273
9	Water content, %, not more than	0,03	0,03	GOST 2477 or ASTM D95
10	Active elements content, Ca+Mg (counted by Ca) %, not lower than	0,12	0,32	GOST 13538 or ASTM D4927
11	Colour on colorimeter (15:85), not more than	3,5	2,0	GOST 20284 or ASTM D1500
12	Corrosion on plumbum plates (DK-NAMI), g/m ² , not more than	Pass	Pass	GOST 20502 method A, var. II
13	Stabilization by inductive period of sedimentation (IPS), 60 hours	Pass	Pass	GOST 11063

Manufactured by KSM PROTEC LLC, Ukraine

Conclusion: Motor oil TEMOL Turbo Diesel (M-10DM) sample satisfies the requirement of TU U 23.2-30858281-007:2008 zm.1,2,3,4 standard based on characteristics analyzed.

Shelf life - 5 years from date of manufacture.



Laboratory technician

Laboratory head

Date of issue: 22.05.22

CERTIFICATE OF ANALYSIS № 534

Motor oil M-10G2K

GOST 8581-78 zm.1-10



Batch № 534

Manufacturing date: 13.07.23 Batch net weight: 15 t

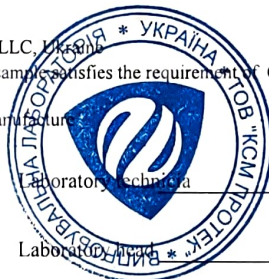
Product Characteristics

№	Characteristics and units	Standard limits	Actual	Test method
1	Kinematic viscosity at 100oC, cSt, in range	10,5-11,5	11,18	DSTU GOST 33
2	Viscosity Index, not lower than	85	135	DSTU GOST 25371
3	Total base number, mg KOH per 1 g, not lower than	6	6,65	GOST 11362
4	Sulfated ash, %, not lower than	1,15	0,9	GOST 12417
5	Flash point (COC), °C, not lower than	210	240	DSTU GOST 4333
6	Pour point, °C, not more than	-15	-23	GOST 20287 method B
7	Density at 20 °C, kg/m3, not more than	905	875	GOST 3900
8	Mechanical impurities content, %, not more than	0,015	0,011	GOST 6370
9	Water content, %, not more than	0,03	nil	GOST 2477
10	Calcium weight, %, not lower than	0,19	0,255	GOST 13538
11	Zinc weight, %, not lower than	0,05	0,065	GOST 13538
12	Phosphorus weight, %, not lower than	0,05	0,054	GOST 9827
13	Purity mg per 100 g of oil, not more than	500	380	GOST 12275
14	The power to establish PZV,point,not more than	0,5	0,5	GOST 5726
11	Colour on colorimeter (15:85), not more than	4,0	1,5	GOST 20284
12	Corrosion on plumbum plates (DK-NAMI), g/m2, not more than	nil	nil	GOST 20502
13	Stabilization by inductive period of sedimentation (IPS), 50 hours	Pass	Pass	GOST 11063

Manufactured by KSM PROTEC LLC, Ukraine

Conclusion: Motor oil M-10G2K sample satisfies the requirements of GOST 8581-78 zm.1-10 standard based on characteristics analyzed.

Shelf life - 5 years from date of manufacture



Laboratory Technica

Date of issue: 17.07.23