

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: 21.05.21

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	12,17	DSTU GOST 33 or ASTM D445
2	Viscosity Index, not lower than	90	95	DSTU GOST 25371 or ASTM D2270
3	Total base number, mg KOH per 1 g, not lower than	8,2	8,92	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	244	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	1,5	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



[Handwritten signature]

CERTIFICATE OF ANALYSIS № 435

Motor oil TEMOL Diesel (M-10G2K)

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

Batch № 435

SAE 30

API CC

Manufacturing date: 23.04.21

Batch net weight: 24,2 t

Product Characteristics

№	Characteristics and units	Standard limits	Actual	Test method
1	Kinematic viscosity at 100°C, cSt, in range	9,3-12,5	10,63	DSTU GOST 33
2	Viscosity Index, not lower than	95	100	DSTU GOST 25371
3	Total base number, mg KOH per 1 g, not lower than	6,0	6,40	DSTU 5094
4	Sulfated ash, %, not lower than	1,15	0,90	DSTU GOST 12417
5	Flash point (COC), °C, not lower than	220	231	GOST 4333
6	Pour point, °C, not more than	-18	-18	GOST 20287
7	Density at 20 °C, kg/m3, not more than	900	891	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	0,12	0,22	GOST 13538
11	Colour on colorimeter (15:85), not more than	3,0	1,5	GOST 20284
12	Corrosion on plumbum plates (DK-NAMI), g/m2, not more than	Pass	Pass	GOST 20502 method A
13	Stabilization by inductive period of sedimentation (IPS), 50 hours	Pass	Pass	GOST 11063

Manufactured by KSM PROTEC LLC, Ukraine

Conclusion: Motor oil TEMOL Diesel (M-10G2K) 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: 23.04.21



[Signature]

[Signature]

CERTIFICATE OF ANALYSIS № 153

Motor oil PROTEC SD 10W-40

TU U 19.2-37838186-002:2012 zm.1,2



Batch № 153

API CI-4/SL

MB 228.3, Cummins CES 20078

Manufacturing date: 10.02.21

Batch net weight: 4,375 t

ACEA E7, A3/B4

MAN M 3275, Volvo VDS-3

Caterpillar ECF-1a

Renault RLD-2, Mack EO-N

Product Characteristics

№	Characteristics and units	Standard limits	Actual	Test method
1	Kinematic viscosity at 100°C, cSt, in range	12,5 - 16,3	15,24	DSTU GOST 33 or ASTM D445
2	Viscosity Index, not lower than	140	158	DSTU GOST 25371 or ASTM D 2270
3	Total base number, mg KOH per 1 g, not lower than	9,0	10,7	DSTU 5094 or p.7.4 or ISO 3771
4	Sulfated ash, %, not lower than	1,5	1,31	DSTU GOST 12417 or ASTM D 874
5	Flash point (COC), °C, not lower than	205	237	DSTU GOST 4333 or ASTM D92
6	Pour point, °C, not more than	-35	-41	GOST 20287 method B or ASTM D 95
7	Density at 20 °C, kg/m ³ , not more than	910	851	GOST 3900 or ASTM D 1298
8	Mechanical impurities content, %, not more than	nill	nill	GOST 6370 or ASTM D 2273
9	Water content, %, not more than	0,03	nill	GOST 2477 or ASTM D 95
10	Calcium weight, %, not lower than	0,3	0,34	GOST 13538 or ASTM D 6443
11	Zinc weight, %, not lower than	0,09	0,1	GOST 13538 or ASTM D 6443
12	Colour on colorimeter (15:85), not more than	3,5	1,5	GOST 20284 or ASTM D 1500
13	Stabilization by inductive period of sedimentation (IPS), 50 hours	Pass	Pass	GOST 11063
14	Corrosion on plumbum plates (DK-NAMI), g/m ² , not more than	Pass	Pass	GOST 20502 method A, V.II
15	Cold Cranking Simulatorat viscosity at -25°C, mP*s, not more than	7000	5600	GOST 1929 or p.7.5 or ASTM D 5293

Manufactured by KSM PROTEC LLC, Ukraine

Conclusion: Motor oil PROTEC SD 10W-40 sample satisfies the requirement of TU U 19.2-37838186-002:2012 zm.1,2 standard based on characteristics analyzed.

Shelf life - 5 years from date of manufacture.

Laboratory (signature)

Laboratory head

Date of issue: 10.02.21



[Handwritten signature]

[Handwritten signature]

CERTIFICATE OF ANALYSIS № 1043

Transmission Oil PROTEC Nigrol Z

TU U 19.2-37838186-003:2012 zm.1



Batch № 1043

Manufacturing date: 29.09.21

Batch net weight: 2,88 t

Product Characteristics

№	Characteristics and units	Standard limits	Actual	Test method
1	Kinematic viscosity at 100oC, cSt, in range	22-28	26,46	DSTU GOST 33 or ASTM D445
2	Flash point, °C, not lower than	180	202	DSTU GOST 4333 or ASTM D92
3	Pour point, °C, not more than	-10	-25	GOST 20287 method B or ASTM D97
4	Water content, %, not more than	0,5	0,1	GOST 2477 or ASTM D95
5	Density at 20 °C, kg/m3, not more than	970	872	GOST 3900 or ASTM D1298
6	Corrosion test during 3 hr at 100°C on steel and copper plates	pass	pass	GOST 2917 and p.7.4 or ASTM D130
7*	Rubber compatibility (volume change) for UIM-1, %, in range	+1,0 - +6,0	3,4	GOST 9.030 and p.7.5

Manufactured by KSM PROTEC LLC

Conclusion: transmission oil PROTEC Nigrol Z sample satisfies the requirement of TU U 19.2-37838186-003:2012 zm.1 standard based on characteristics analyzed.

Laboratory technician

Laboratory head

Date of issue: 30.09.21



[Handwritten signatures]

OILTECH®ANTIGEL AUTO G 12 + "LONG LIFE" READY TO USE (-35°) CERTIFICAT R.A.R nr . 3855, ST- LBX-24

1. Obiect

Antigelul auto G 12+" LONG LIFE" READY TO USE (-35°C) este un amestec de glicoli, inhibitori de coroziune si apa demineralizata, conceput dupa o formula inovatoare, bazata pe 20 de ani de experienta in domeniul producerii de solutii chimice profesionale, aditivat dupa tehnologie **OAT (inhibitori de coroziune tip organic)**, folosind un pachet multifunctional de aditiv BASF intr-o concentratie mare, ce asigura o protectie indelungata de peste 200 000 km (2000 ore) la autoturisme si min 650 000 km (8000ore) la camioane, autobuze. Tehnologia OAT este agreata de producatori auto ca BMW, Mercedes & Volvo, Ford, Renault, etc.

2. Domeniul de utilizare

Produsul este un antigel profesional, deosebit de stabil termo-chimic, de tip «**LONG LIFE**» ce poate fi utilizat peste 100 000 km, dedicat utilizarii la autovehicule fabricate dupa anul 2005, care au componente si garnituri din aliaje metalice complexe.

Produsul poate fi utilizat indiferent de anotimp, avand **tripla aplicabilitate**:

- a)** Protectia la inghet pana la – 35°C a radiatorului si implicit a functionarii optime a motorului in sezonul rece;
- b)** Protectia la supraincalzire, a radiatorului, pompei de apa si garniturilor prin asigurarea coeficientului optim de transfer termic.
- c)** Protectia totala, prin intermediul unui pachet complex de aditivi si stabilizatori, a tuturor componentelor sistemului, in special a componentelor din aluminiu, cauciuc si metale, asigurand cresterea duratei de viata a autoturismului.

3. Nivel de performanta si clasificare

Corespunde standardelor:

STAS 8671; BS 6580, ASTM D 3306; ASTM D 4656, ASTM D 4340; ASTM D 4985;NFR 15-601,FVV Heft R443,JASO M325, KSM 2142, BT-PS -606A,DC SEA 615/C; FSD 8704; NATO S-759; SAE J1034 si

Specificatiilor :

MB-325.0/325.2/325.3

MAN-324 tip SNF

VW-TL774 A/B/C/D/F

SAAB- 6901599

Scania-0-891027GT EN

Volvo- 1286083

Opel-B 040 0068/B 040 0240

BMW- N60069.0

Ford-ESE-M97B18-C/ESE-M97B44-A/SSM-97B9102-A/WSE-M97B44-B/WSN-M97B18-D/WSS-M97B44-D1/WSS-M97B44-D2

General Motors-GM 1825M/GM 6038M/GM 6043M/GM 6277 Dexcool/ GM1899M

Cummins- 90T84/TMC RP329

Mack Tracks- 014 GS 17004

1. JI Case- MS 1710
2. John Deere-JDM H24A1/H24B1/H24C1/H5

4. Mod de utilizare

Se utilizeaza ca atare pentru o protectie de -35°C.

Asigurati-va ca motorul este rece inainte de a deschide capacul radiatorului sau al vasului de expansiune;
Pentru a nu deteriora proprietatile antigelului, goliti si curatati sistemul de racire inainte de introducere;
Masurati la inceputul sezonului rece, punctul de congelare al antigelului din radiator.

5. Instructiuni de SSM-SU:

Produs foarte putin inflamabil. Nu provoaca autoaprindere.

Dupa utilizare, spalati mainile cu apa si sapun. Nu mancati sau beti in timpul manipularii.

Nu utilizati ambalajele goale, in scopul depozitarii lichidelor de uz alimentar!

Nu contine nitrati, silicati, borati sau fosfati.

6. Conditii tehnice de calitate- ST LBX 24

Nr. crt.	PROPRIETATI FIZICE SI DE PERFORMANTA	Antigel auto G 12+ READY TO USE (-35°) TYP
1	Aspect, culoare	Culoarea se stabileste prin intelegere
2	pH	7,8
3	Greutate specifica 15,6°C,	1,12
4	Punct de fierbere,	108
5	Punct de congelare °C,	-36
7	Reziduu la calcinare, %	1,0
8	Pierderi de metal prin coroziune, mg/cm ² , . - cupru 99,9 - alama CuZn30 - otel OLC35 - aluminiu 99,5 - fonta Fe 200	+0,004 -0,012 -0,004 -0,045 -0,049

Produsul se livrează in ambalaje de plastic de 1kg, 5 kg, 20kg , butoaie de tabla de 220 kg sau vrac.

Termenul de garanție – 3 ani in depozitare.

OILTECH ®ANTIGEL PENTRU UZ AUTO G 12 "LONG LIFE"

READY TO USE (-40°)

CERTIFICAT R.A.R nr . 3855, ST- LBX-24

1. Obiect

Antigelul auto G 12“ LONG LIFE” READY TO USE (-40°C) este un amestec de glicoli, inhibitori de coroziune si apa demineralizata, conceput dupa o formula inovatoare, bazata pe 20 de ani de experienta in domeniul producerii de solutii chimice profesionale, aditivat dupa tehnologie **OAT (inhibitori de coroziune tip organic)**, folosind un pachet multifunctional de aditiv BASF intr-o concentratie mare, ce asigura o protectie indelungata de peste 200 000 km (2000 ore) la autoturisme si min 650 000 km (8000ore) la camioane, autobuze. Tehnologia OAT este agreata de producatori auto ca BMW, Mercedes & Volvo, Ford, Renault, etc.

2. Domeniul de utilizare

Produsul este un antigel profesional, deosebit de stabil termo-chimic, de tip «**LONG LIFE**» ce poate fi utilizat peste 100 000 km, dedicat utilizarii la autovehicule fabricate dupa anul 2005, care au componente si garnituri din aliaje metalice complexe.

Produsul poate fi utilizat indiferent de anotimp, avand **tripla aplicabilitate**:

- a) Protectia la inghet pana la – 40°C a radiatorului si implicit a functionarii optime a motorului in sezonul rece;
- b) Protectia la supraincalzire, a radiatorului, pompei de apa si garniturilor prin asigurarea coeficientului optim de transfer termic.
- c) Protectia totala, prin intermediul unui pachet complex de aditivi si stabilizatori, a tuturor componentelor sistemului, in special a componentelor din aluminiu, cauciuc si metale, asigurand cresterea duratei de viata a autoturismului.

3. Nivel de performanta si clasificare

Corespunde standardelor: STAS 8671; BS 6580, ASTM D 3306; ASTM D 4656, ASTM D 4340; ASTM D 4985;NFR 15-601,FVV Heft R443,JASO M325,AF-NAC , KSM 2142, BT-PS -606A,DC SEA 615/C; FSD 8704; NATO S-759; SAE J1034 si

Specificatiilor :

MB-325.0/325.2/325.3

MAN-324 tip SNF

VW-TL774 A/B/C/D/F

SAAB- 6901599

Scania-0-891027GT EN

Volvo- 1286083

BMW- N60069.0

4. Mod de utilizare

Se utilizeaza ca atare pentru o protectie de -40°C.

Asigurati-va ca motorul este rece inainte de a deschide capacul radiatorului sau al vasului de expansiune;

Pentru a nu deteriora proprietatile antigelului, goliti si curatati sistemul de racire inainte de introducere;

Masurati la inceputul sezonului rece, punctul de congelare al antigelului din radiator.

5. Instructiuni de SSM-SU:

Produs foarte putin inflamabil. Nu provoaca autoaprindere.

Dupa utilizare, spalati mainile cu apa si sapun. Nu mancati sau beti in timpul manipularii.

Nu utilizati ambalajele goale, in scopul depozitarii lichidelor de uz alimentar!

Nu contine nitrati, silicati, borati sau fosfati.

6. Conditii tehnice de calitate

Nr. crt.	PROPRIETATI FIZICE SI DE PERFORMANTA	Antigel auto G 12 READY TO USE (-40°) TYP
1	Aspect, culoare	Culoarea roz
2	pH	7,8
3	Greutate specifica 15,6°C,	1,12
4	Punct de fierbere,	108
5	Punct de congelare °C,	-40
7	Reziduu la calcinare, %	1,0

8	Pierderi de metal prin coroziune, mg/cm ² , . - cupru 99,9 - alama CuZn30 - otel OLC35 - aluminiu 99,5 - fonta Fe 200	+0,004 -0,012 -0,004 -0,045 -0,049
---	---	--

Termenul de garanție – 3 ani in depozitare.