TEXACO

Delo 400 XSP-SD SAE 5W-30

High performance synthetic heavy-duty diesel engine oil

Product description

Delo® 400 XSP-SD SAE 5W-30 is a high performance synthetic heavy duty engine oil designed for fuel economy and meets the performance requirements of a wide range of naturally aspirated and turbocharged diesel engines in on-highway, off-highway and construction service.

Delo 400 XSP-SD SAE 5W-30 is based on ISOSYN® technology with low SAPS performance and dispersant, detergent, oxidation, anti-wear, corrosion, viscosity improver and de-foaming additives and meets Euro VI emissions requirements, while offering extended drain intervals.

Customer benefits

- Designed for improved fuel economy performance while helping maintain robust component wear protection and engine service life
- Formulated for good performance in a wide range of engines, and helps reduce inventories, costs, and the risk of misapplication
- Low viscosity synthetic base oils offer rapid circulation in cold and sub-zero engine start-ups
- Extended drain formulation combines synthetic base stocks and additives to promote wear, oxidation, sludge and thickening control
- Offers reliable Diesel Particulate Filter (DPF) clogging protection and helps reduce cleaning while improving DPF service life

ISOSYN TECHNOLOGY™

Product highlights

- **Designed for fuel economy and engine service life**
- **Helps reduce inventories and misapplication**
- **Offers protection in sub-zero engine starts**
- **Extended drain formulation**
- **Promotes DPF protection and service life**

Selected specification standards include:

ACEA	API
Caterpillar	Cummins
DAF	Detroit Diesel
Deutz	Ford
JASO	Mack
MAN	Mercedes Benz
MTU	Renault Trucks
Scania	Volvo

Applications

- Delo 400 XSP-SD SAE 5W-30 is a high performance engine oil recommended for four-stroke naturally aspirated and turbocharged diesel engines.
- Delo 400 XSP-SD SAE 5W-30 is recommended for diesel engines meeting Euro I - Euro V and the latest Euro VI emissions requirements where allowed by the OEMs and is suitable for use in engines with global after treatment systems.
- Delo 400 XSP-SD SAE 5W-30 is recommended for use in older engines as well as today's most modern low emission designs. It is formulated for high performance with many fuels including low sulphur and ultra-low sulphur diesel fuels, and many biofuel formulations.

Approvals, performance and recommendations

Approvals

- Cummins CES 20086
- Detroit Diesel DFS 93K222
- Deutz DQC IV-18 LA
DQC TTCD°
- Mack EOS-4.5
- MAN M3677
M3691 (approval request submitted)
- Mercedes Benz MB-Approval 228.51
MB-Approval MB 228.52
- MTU Oil Category 3.1
- Renault Trucks RLD-3
- Scania LDF-4
- Volvo VDS-4.5

Performance

- ACEA E6, E7, E9
- API CK-4, CJ-4, CI-4 Plus, CI-4, CH-4 SN, SM, SL, SJ
- JASO DH-2
- Caterpillar ECF-3
- DAF Extended drain (Euro IV to VI)*
- Ford WSS-M2C213-A1
- Mack EO-O Premium Plus, EO-N, EO-M Plus, EO-M
- MAN M3477**, M3271-1**
- Mercedes Benz MB 228.31
- Renault Trucks RLD-2, RLD, RXD, RGD
- Volvo VDS-4, VDS-3
- Scania Low Ash

Suitable for use

Delo 400 XSP-SD SAE 5W-30 is suitable for use in applications requiring:

- Iveco 18-1804 TLS E6***
- Liebherr LH-00-ENG LA
- Renault Trucks RD-2, RD
- Volvo VDS-2, VDS

° Product approved for DQC IV-18 LA are also approved for use in Deutz TTCD engines

* Can be used in Euro IV & Euro V MX engines and in Euro VI MX & PX engines for DAF

** These product claims are obsolete by MAN and no approvals can be obtained, applications that require these claims can be fulfilled by MAN M3677 approved products

*** Check equipment/vehicle manual to ensure that the drain interval of oil is aligned with S content in the fuel used in the engine

Typical test data

Test	Test Methods	Results
Viscosity Grade		**5W-30**
Shelf Life: 60 months from date of filling indicated on the product label		
Density at 15°C, kg/l	ASTM D4052	0.858
Kinematic viscosity at 40°C, mm^2/s	ASTM D445	73
Kinematic viscosity at 100°C, mm^2/s	ASTM D445	12.2
Viscosity Index	ASTM D2270	164
Pour point, °C	ASTM D97	-42
Flash point COC, °C	ASTM D92	231
Total Base Number, mg KOH/g	ASTM D2896	9.5
Sulphated Ash, %wt	ASTM D874	0.9

The typical test data set out above does not constitute a specification. It is indicative only and can be affected by allowable production tolerances. Chevron may modify this test data. Modified data will supersede all previous data, so please ensure you refer to the latest version of this Product Data Sheet (PDS).

When disposing of used product, take care to protect the environment and follow local legislation.

Safety Data Sheets (SDS's) are available for all Chevron products. If you require a SDS or any further information regarding a Chevron product, please contact your local sales office or see www.texacolubricants.com.

Always confirm that the product selected is consistent with the original equipment manufacturer's recommendation for the equipment operating conditions and customer's maintenance practices.

A **Chevron** company product

MOGUL OIL® Super Traffic 10W40
CI-4/SL;
ULEI PENTRU MOTOARE DIESEL SURAALIMENTATE

Descriere:
MOGUL OIL® Super Traffic 10W40 este fabricat din uleiuri be baza minerale și sintetice de foarte bună calitate și un pachet de aditivi moderni cu continut de inhibitori de coroziune, aditivi detergent-dispersanți.

Utilizare:
MOGUL OIL® Super Traffic 10W40 este destinat folosirii in motoarele diesel turbo-supraalimentate care functioneaza in conditii severe, cu intervale prelungite intre schimburile de ulei, in conformitate cu recomandarile producatorului. Este adecvat pentru majoritatea motoarelor moderne echipate cu sisteme de poluare EGR (recircularea gazelor de evacuare) si SCR NOx (sisteme de reducere catalitica selectiva a noxelor). Este recomandat pentru motoarele diesel de clasa superioara, care respecta normele de emisii Euro-3, 4, 5.

Clasificare, specificații:
ACEA E7/B4/A3 ACEA E5/E3 API CI-4/CH-4; VOLVO VDS-3; MAN M3275-1; MB 228.3; Scania LDF-2; Renault Truck RLD-2; Cummins CES 20076/77/78; MTU Type 2; MACK EO-N; DEUTZ DQC III-10; GLOBAL DHD-1; JASO DH-1.

Proprietăți caracteristice:
- protectie maxima a motorului impotriva uzurii, coroziunii si formarii depunerilor la temperaturi ridicate;
- pornire usoara la temperaturi joase;
- curatenia pistonului;
- economie de carburant.

Caracteristici:

Parametri	Unitatea de masura	Valori tipice	Metoda de analiza
Densitate la 15 °C	g/m3	0.875	EN ISO 3675
Viscozitate cinematica la 100°C	cSt	15	SR EN ISO 3104
Indice de viscozitate		155	ISO 2909
Punct de inflamabilitate COC	°C	225	SR EN ISO 2592
Punct de curgere	°C	-35	ISO3016

Ambalare: 20L, 200L si 1000L.
Termen de garantie: 5 ani in depozitare.

MOGUL OIL® Super Traffic 15W40
CI-4/SL;
ULEI PENTRU MOTOARE DIESEL SUPRAALIMENTATE

Descriere:
MOGUL OIL® Super Traffic 15W40 este fabricat din uleiuri be baza minerale şi sintetice de foarte bună calitate şi un pachet de aditivi moderni cu continut de inhibitori de coroziune, aditivi detergent-dispersanţi.

Utilizare:
MOGUL OIL® Super Traffic 15W40 este un ulei de motor de tip heavy duty special dezvoltat pentru utilizare in motoare diesel de ultima generatie, conform cerinţelor Euro I, II, III şi IV (fără filtru DPF), inclusiv cu turbocompresor, care funcţionează în condiţii extrem de severe şi cu un interval de schimb extins.

Clasificare, specificaţii:
ACEA E7/B4/A3 ACEA E5/E3 API CI-4/CH-4; VOLVO VDS-3; MAN M3275-1; MB 228.3; Scania LDF-2; Renault Truck RLD-2; Cummins CES 20076/77/78; MTU Type 2; MACK EO-N; DEUTZ DQC III-10; GLOBAL DHD-1; JASO DH-1.

Proprietăţi caracteristice:
- protectie maxima a motorului impotriva uzurii, coroziunii si formarii depunerilor la temperaturi ridicate;
- pornire usoara la temperaturi joase;
- curatenia pistonului;
- economie de carburant.

Caracteristici:

Parametri	Unitatea de masura	Valori tipice	Metoda de analiza
Densitate la 15 °C	g/m3	0.888	EN ISO 3675
Viscozitate cinematica la 100°C	cSt	15	SR EN ISO 3104
Indice de viscozitate		135	ISO 2909
Punct de inflamabilitate COC	°C	231	SR EN ISO 2592
Punct de curgere	°C	-30	ISO3016

Ambalare: 20L, 200L si 1000L.
Termen de garantie: 5 ani in depozitare.

MOGUL OIL®
Super Gear 80W90 GL5, 85W140 GL5
80W90, API GL-5
ULEI DE TRANSMISIE MULTIGRAD CU PROPIETATI EP

Descriere:
MOGUL OIL® Super Gear 80W90 GL5, 85W140 GL5 este obtinut din uleiuri de baza rafinate şi un pachet de aditivi foarte performant, cu caracteristici îmbunătăţite pentru utilizare la presiuni ridicate.

Utilizare:
MOGUL OIL® Super Gear 80W90 GL5, 85W140 GL5 este destinat folosirii in transmisiile autovehiculelor si a vehiculelor grele precum si a utilajelor industriale hipoidale, melcate, in special pentru condiţii de exploatare extreme. Se poate utiliza pe tot cursul anului, avantajoasă fiind utilizarea acestuia la temperaturi scăzute, dar şi la temperaturi obişnuite sau ridicate, unde garantează fiabilitatea cutiei de viteze. Utilizarea produsului în aplicaţii industriale (de exemplu, cutii de viteze industriale extrem de solicitate care lucrează într-o gamă de temperatură foarte largă) este, de asemenea, posibilă.

Clasificare, specificaţii:
API GL-5; MAN 342 type M1; MIL-L-2105D

Proprietăţi caracteristice:
- asigură o funcţionarea impecabilă a angrenajelor chiar şi în cele mai grele condiţii de funcţionare şi la oscilaţii mari de temperatură;
- strat de lubrifiere stabil;
- oferă o protecţie la uzură optimă;
- reduce zgomotul de rulare;
- nu atacă materialele de etanşare obişnuite.

Caracteristici:

Parametri Super Gear 80W90 GL5	Unitatea de masura	Valori tipice	Metoda de analiza
Densitate la 20 °C	g/m3	0.880	EN ISO 3675
Viscozitate cinematica la 40°C	cSt	158	SR EN ISO 3104
Viscozitate cinematica la 100°C	cSt	16	SR EN ISO 3104
Indice de viscozitate		105	ISO 2909
Punct de inflamabilitate COC	°C	205	SR EN ISO 2592
Punct de curgere	°C	-33	ISO3016

MOGUL OIL®
Super Gear 80W90 GL5, 85W140 GL5

INFORMATII TEHNICE

Parametri Super Gear 85W140 GL5	Unitatea de masura	Valori tipice	Metoda de analiza
Densitate la 20 °C	g/m3	0.903	EN ISO 3675
Viscozitate cinematica la 40°C	cSt	358	SR EN ISO 3104
Viscozitate cinematica la 100°C	cSt	24.5	SR EN ISO 3104
Indice de viscozitate		95	ISO 2909
Punct de inflamabilitate COC	°C	215	SR EN ISO 2592
Punct de curgere	°C	-24	ISO3016

Ambalare: 20L, 200L.
Termen de garantie: 5 ani in depozitare.

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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 requirement of GOST 8581-78 zm.1-10 standard based on characteristics analyzed.

Shelf life - 5 years from date of manufacture

Laboratory technician

Laboratory head

Date of issue: 17.07.23

ТОВ "КСМ ПРОТЕК", вул. Ворошилова, буд. 1, смт. Клавдієво-Тарасове, 07850, Київська обл., Україна; тел. /ф.: 044 537 03 48 www.ksmprotec.com

CERTIFICATE OF ANALYSIS № 596

Transmission Oil PROTEC Nigrol L

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

Batch № 596

Manufacturing date: 07.08.23 Batch net weight: 8,25 t

Product Characteristics

№	Characteristics and units	Standard limits	Actual	Test method
1	Kinematic viscosity at 100oC, cSt, in range	27,0 - 34,0	29,81	DSTU GOST 33 or ASTM D445
2	Flash point, °C, not lower than	180	189	DSTU GOST 4333 or ASTM D92
3	Pour point, °C, not more than	-5	-12	GOST 20287 method B or ASTM D97
4	Water content, %, not more than	1,0	1,0	GOST 2477 or ASTM D95
5	Density at 20 °C, kg/m3, not more than	970	863	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	+4,0	GOST 9.030 and p.7.5

Manufactured by KSM PROTEC LLC

Conclusion: transmission oil PROTEC Nigrol L 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: 07.08.23

ТОВ «КСМ ПРОТЕК», вул. Варшавська, буд. 1, смт. Клавдієво-Тарасове, 07850, Київська обл., Україна; тел./ф.: 044 537 03 48 www.ksmprotec.com

CERTIFICATE OF ANALYSIS № 749

Hydraulic oil PROTEC HYDROIL HV 46

TU U 19.2-37838186-005:2012 zm.1,2

Batch № 749 | ISO 11158 HV | DIN 51524 HVLP | ISO VG 46

Manufacturing date: 11.10.24 | Batch net weight: 0,72 t

Product Characteristics

№	Characteristics and units	Standard limits	Actual	Test method
1	Kinematic viscosity at 40oC, cSt, in range	41,4-50,6	48,86	DSTU GOST 33 or ASTM D445
2	Viscosity Index, not lower than	140	141	DSTU GOST 25371 or ASTM D2270
3	Total acid number, mg KOH per 1 g, not more than	1,5	0,12	GOST 11362 and P.7.6
4	Flash point, °C, not lower than	185	220	DSTU GOST 4333 or ASTM D92
5	Pour point, °C, not more than	-32	-34	GOST 20287 method B or ASTM D97
6	Mechanical impurities content, %, not more than	nil	nil	GOST 6370 or ASTM
7	Water content, %, not more than	nil	nil	GOST 2477 or ASTM D95
8	Density at 20 °C, kg/m3, not more than	900	872	GOST 3900 or ASTM D1298
9	Ash content, %, not more than	0,3	0,005	GOST 1461or ASTM D 482
10	Corrosion test on steel plates	Pass	Pass	GOST 2917 and P.7.4
11	Rubber compatibility (72 h, 130 oC) mass change for UIM-1, %, not more than	7,5	3,0	GOST 9.030 method A
12	Sequence I, not more than	150/0	0/0	DSTU 8420 or ASTM D 892
13	Sequence II, not more than	100/0	30/0	DSTU 8420 or ASTM D 892
14	Sequence III, not more than	150/0	0/0	DSTU 8420 or ASTM D 892
15	Four ball Wear test machine (20±5°C), 196N, scar mm, not more than	0,45	0,34	GOST 9490 or ASTM
16	Colour on colorimeter, not more than	4,0	1,0	GOST 20284 or ASTM D1500

Manufactured by KSM PROTEC LLC, Ukraine

Conclusion: Hydraulic oil PROTEC HYDROIL HM 46 sample satisfies the requirement of TU U 19.2-37838186-005:2012 zm.1,2 standard based on characteristics analyzed.

Shelf life - 5 years from date of manufacture.

Laboratory technician

Laboratory head

Date of issue: 14.10.24

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CERTIFICATE OF ANALYSIS № 514

Hydraulic oil PROTEC HYDROIL HM 32

TU U 19.2-37838186-005:2012 zm.1,2

Batch № 514 | ISO 11158 HM | DIN 51524 HLP | ISO VG 32

Manufacturing date: 10.07.23 | Batch net weight: 2,52 t

Product Characteristics

№	Characteristics and units	Standard limits	Actual	Test method
1	Kinematic viscosity at 40oC, cSt, in range	28,8-35,2	30,05	DSTU GOST 33 or ASTM D445
2	Viscosity Index, not lower than	95	107	DSTU GOST 25371 or ASTM D2270
3	Total acid number, mg KOH per 1 g, not more than	2,0	0,58	GOST 11362 and P.7.6
4	Flash point, °C, not lower than	195	210	DSTU GOST 4333 or ASTM D92
5	Pour point, °C, not more than	-30	-33	GOST 20287 method B or ASTM D97
6	Mechanical impurities content, %, not more than	nil	nil	GOST 6370 or ASTM
7	Water content, %, not more than	nil	nil	GOST 2477 or ASTM D95
8	Density at 20 °C, kg/m3, not more than	910	866	GOST 3900 or ASTM D1298
9	Ash content, %, not more than	0,3	0,14	GOST 4161or ASTM D 482
10	Corrosion test on steel plates	Pass	Pass	GOST 2917 and P.7.4
11	Rubber compatibility (72 h, 130 oC) mass change for UIM-1, %, not more than	7,5	3,0	GOST 9.030 method A
12	Sequence I, not more than	150/0	0/0	DSTU 8420 or ASTM D 892
13	Sequence II, not more than	100/0	40/0	DSTU 8420 or ASTM D 892
14	Sequence III, not more than	150/0	0/0	DSTU 8420 or ASTM D 892
15	Four ball Wear test machine (20±5°C), 196N, scar mm, not more than	0,50	0,3	GOST 9490 or ASTM
16	Colour on colorimeter, not more than	3,5	1,0	GOST 20284 or ASTM D1500

Manufactured by KSM PROTEC LLC, Ukraine

Conclusion: Hydraulic oil PROTEC HYDROIL HM 32 sample satisfies the requirement of TU U 19.2-37838186-005:2012 zm.1,2 standard based on characteristics analyzed

Shelf life - 5 years from date of manufacture

Laboratory technician

Laboratory head

Date of issue: 11.07.23

ТОВ "КСМ ПРОТЕК", вул. Ворошилова, буд. 1, смт. Клавдієво-Тарасове, 07850, Київська обл., Україна; тел. /ф.: 044 537 03 48 www.ksmprotec.com

CERTIFICATE OF ANALYSIS № 160

Solidol Zhirovoi Lubricating Grease

GOST 1033-79 zm. 1,2,3

Batch № 160

Manufacturing date: 06.06.23 Batch net weight: 3,44 t

Product Characteristics

№	Characteristics and units	Standard limits	Actual	Test method
1	Appearance	Uniform grease with color between light-yellow and dark-brown	Uniform grease with brown color*	- P.4.2 of GOST 1033
2	Dropping point, °C, not lower than	78	94	GOST 6793
3	Penetration at 25°C, 0,1 mm	230 - 290	240	GOST 5346, method V
4	Viscosity at 0°C and velocity gradient of 10 s-1, Pa*s, not more than	250 (2500)	235 (2350)	GOST 7163
5	Shear stability at 50°C, Pa, not lower than	196 (2,0)	196 (2,0)	GOST 7143
6	Free organic acids content, not more than	nil	nil	GOST 6707
7	Water content, %, not more than	2,5	1,8	GOST 2477
8*	Mechanical impurities insoluble in hydrochloric acid content	nil	nil	GOST 6479
9*	Calcium soaps of fatty acids conter, %, not less than	11,0	13,1	GOST 5211
10	Free alkali content NaOH, %, not more than	0,2	0,03	GOST 6707

* As agreed by the parties

Manufactured by KSM PROTEC LLC

Conclusion: **Solidol Zhirovoi** lubricating grease sample satisfies the requirement of GOST 1033-79 zm. 1,2,3 standard based on characteristics analyzed.

Laboratory technician

Laboratory head

Date of issue: 08.06.23

ТОВ «КСМ ПРОТЕК», вул. Варшавська, буд. 1, смт. Клавдієво-Тарасове, 07850, Київська обл., Україна; тел./ф.: 044 537 03 48 www.ksmprotec.com

CERTIFICATE OF ANALYSIS № 625

Transmission oil TEMOL ATF II

TU U 23.2-30858281-003:2004 zm.1,2,3

Batch № 625 DEXRON IID

Manufacturing date: 02.09.24 Batch net weight: 2,7 t

Product Characteristics

№	Characteristics and units	Standard limits	Actual	Test method
1	Appearance	Transparent red oil	Transparent red oil liquid	Visually
2	Kinematic viscosity at 100oC, cSt, in range	6,8-7,8	7,12	DSTU GOST 33 or ASTM D445
3	Viscosity Index, not lower than	130	173	DSTU GOST 25371 or ASTM D2270
4	Flash point (COC), °C, not lower than	175	207	DSTU GOST 4333 or ASTM D92
5	Pour point, °C, not more than	-40	-46	GOST 20287, method B or ASTM D97
6	Mechanical impurities content, %, not more than	nil	nil	GOST 6370 or ASTM D2273
7	Water content, %, not more than	nil	nil	GOST 2477 or ASTM D95
8	Density at 20 °C, kg/m3, not more than	880	846	GOST 3900 or ASTM D1298
9	Corrosion test during 3 hr at 100°C on steel and copper plates, point, not more than	2c	2a	GOST 2917 and p. 5.3 or ASTM D130
10	Dynamic viscosity (-40 oC), Pa*s, not more than	14	5,6	GOST 1929 method A
11	Sequence I, not more than	70/0	0/0	ASTM D892 or DSTU 8420
12	Sequence II, not more than	50/0	0/0	ASTM D892 or DSTU 8420
13	Sequence III, not more than	70/0	0/0	ASTM D892 or DSTU 8420

Manufactured by KSM PROTEC LLC, Ukraine

Conclusion: Transmission oil TEMOL ATF II sample satisfies the requirement of TU U 23.2-30858281-003:2004 zm.1,2,3 standard based on characteristics analyzed.

Shelf life - 5 years from date of manufacture.

ТОВ «КСМ ПРОТЕК» ВИПРОБУВАЛЬНА ЛАБОРАТОРІЯ УКРАЇНА

Laboratory technician _____

Laboratory head _____

Date of issue: 03.09.24

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CERTIFICATE OF ANALYSIS № 772

Transmission oil PROTEC ATF III

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

Batch № 772 Dexron IIIG

Manufacturing date: 22.10.24 Batch net weight: 2,485 t

Product Characteristics

№	Characteristics and units	Standard limits	Actual	Test method
1	Appearance	Transparent red liquid	Transparent red liquid	Visually
2	Kinematic viscosity at 100oC, cSt, in range	7 - 9	7,54	DSTU GOST 33 or ASTM D445
3	Viscosity Index, not lower than	150	174	DSTU GOST 25371 or ASTM D2270
4	Flash point (COC), °C, not lower than	175	220	DSTU GOST 4333 or ASTM D92
5	Pour point, °C, not more than	-45	-48	GOST 20287, method B or ASTM D 97
6	Mechanical impurities content, %, not more than	nil	nil	GOST 6370 or ASTM D2273
7	Water content, %, not more than	nil	nil	GOST 2477 or ASTM D95
8	Density at 20 °C, kg/m3, not more than	880	845	GOST 3900 or ASTM D1298
9	Corrosion test during 3 hr at 100°C on steel and copper plates	Pass	Pass	GOST 2917 and p.5.3 or ASTM D130
10	Dynamic viscosity (-40 oC), mPa*s, not more than	12000	5250	GOST 1929 method A
11	Sequence I, not more than	50/0	0/0	DSTU 8420 or ASTM D 892
12	Sequence II, not more than	30/0	0/0	DSTU 8420 or ASTM D 892
13	Sequence III, not more than	50/0	0/0	DSTU 8420 or ASTM D 892

Manufactured by KSM PROTEC LLC, Ukraine

Conclusion: Transmission oil Temol ATF III sample satisfies the requirement of TU U 19.2-37838186-003:2012 zm.1 standard based on characteristics analyzed.

Shelf life - 5 years from date of manufacture.

Laboratory technician _____

Laboratory head _____

Date of issue: 23.10.24

LUBRO DOT 4

NR 16 / 07.06.2021

Lichid pentru frana si ambreiaj DOT 4

Specificatii

- ATE DOT 4
- FMVSS 116
- ISO 4925 Class 4
- SAE J 1703/ 1704

Descrierea produsului

LUBRO DOT 4 este un lichid de inalta performanta special dezvoltat pentru frane si ambreiaje. Acesta contine polietilenglicol esteri, aditivi pentru a asigura protectie impotriva coroziunii si oxidarii si stabilizatori. Acest lichid de frana nu este compatibil cu lichidele de frana pe baza de uleiuri minerale.

Aplicatii

LUBRO DOT 4 este destinat utilizarii in sistemele de franare hidraulice si ambreiajele tuturor tipurilor de autovehicule de la autoturisme la camioane, autobuze si trailere, in conformitate cu instructiunile din cartile tehnice. Este compatibil si special destinat sistemelor de franare echipate cu sigilii si garnituri din cauciuc SBR (cauciuc butadien stirenic) sau EPDM (cauciuc etilen propilen dien monomer).

Caracteristici tipice

Informatiile furnizate in datele tipice nu constituie o specificaţie, dar aceste valori se bazeaza pe producţia curenta si pot fi afectate de toleranţele admisibile de producţie. Dreptul de a face modificari este rezervat ANDY MAR GRUP JUNIOR SRL

Proprietate	Metode de incercare	Valoare
Aspect	vizual	Lichid limpede, omogen
Culoare	vizual	Galben deschis
Miros	olfactiv	Caracteristic
Densitate la 20°C, g/cm^3	EN ISO 3675	1.066
Viscozitate cinematica la 20°C, mm^2/s	EN ISO 3104	15.95
Viscozitate cinematica la 50°C, mm^2/s		6.05
Viscozitate cinematica la 100°C, mm^2/s		2.2
Punct de fierbere, °C	EN ISO 3104	260
Punct de inflamabilitate, COC, °C	EN ISO 2592	144
pH	ASTM E 70	8.2
Stabilitate la temperaturi ridicate, °C	ISO 4925, s.5.4	max ± 3 , + 0.05 °C pentru fiecare grad peste 225 °C

Termen de valabilitate

Termenul de valabilitate, la stocare, in ambalajul original, in locuri uscate, este de 5 ani de la data fabricatiei.

Sanatate, Securitate, Transport si Depozitare

Lichidele de frana sunt foarte higroscopice si absorb usor umezeala din aer. Apa afecteaza puternic punctul de fierbere si calitatea lichidelor de frana. Pe baza informațiilor actuale disponibile, acest produs nu este de asteptat sa produca efecte adverse asupra sanatatii atunci cand este utilizat in scopul pentru care a fost recomandat. Va rugam sa urmati cu strictete recomandarile privind conditiile de depozitatre din fisa cu date de securitate.

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