# **CERTIFICATE OF ANALYSIS**

Accreditation No: AZS ISO/IEC 17025:2020/AZ 01.0571.01.21

From: ALCO LLC 3, Vali Mammadov st., Sabail dist. AZ1095, Baku, Azerbaijan Certificate No.:202307994 Date of issue: 06/07/2023

# Test sample

Product: AVTOIL 15W40 CI-4/SL Material ID: M0000164 Date of sampling: 06/07/2023 Manufacture date: 06/07/2023 Batch number: 2307994 Tank ID: T41.4

#### Test result

Date of analysis: 06/07/2023

Parameters	Unit	Test result	Limit	Test method	Conclusion
Appearance	-	Bright & Clear	Bright & Clear	Visual	Pass
Kinematic viscosity at 100 °C	mm²/s	14.17	12.5-16.3	ASTM D445	Pass
Viscosity index	-	145	Min. 130	ASTM D2270	Pass
Water content	%	None	Max. 0.05	ASTM D95	Pass
Flash Point, COC	°C	234	Min. 210	ASTM D92	Pass
Pour Point	°C	-30	Max27	ASTM D97	Pass
TBN	mg KOH/g	9.65	Min. 9.0	ASTM D2896	Pass
Color		2.1	Test & Report	ASTM D1500	Pass
Density at 20 °C	g/cm <sup>3</sup>	0.8696	Test & Report	ASTM D4052	Pass

Shelf life: 5 years from the date of manufacture of the product if proper storage conditions are followed.

#### Notes & Instructions:

- Tests conducted according to International Standard Test Methods are routinely verified to be in compliance with the latest published versions. Minor changes may be made where they have no material impact on test results and are necessitated by reasons such as safety, environmental standards and method effectiveness.
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Matilda Yusifova Head of Laboratory





# ALCO QUALITY ASSURANCE LABORATORY TEST REPORT

Accreditation No: AZS ISO/IEC 17025:2020/AZ 01.0571.01.21



Company: ALCO LLC 3, Vali Mammadov st., Sabail dist. AZ1095, Baku, Azerbaijan **Certificate No.:** 2024178 **Date of issue:** 03/02/2024

### Test sample

Product: AVTOIL 80W90 GL-5 Batch number: 2402178 Tank ID: T41.4 Manufacture date: 03/02/2024 Date of sampling: 03/02/2024 Date of analysis: 03/02/2024

### Test result

Parameters	Unit	Test method	Limit	Test result	Conclusion
Appearance	-	Visual	Bright & Clear	Bright & Clear	Pass
Kinematic viscosity at 100 °C	mm²/s	ASTM D445	13.50-18.50	14.56	Pass
Viscosity index	-	ASTM D2270	Min. 90	94	Pass
Water content	%	ASTM D95	Max. 0.05	None	Pass
Flash Point, COC	°C	ASTM D92	Min. 210	240	Pass
Pour Point	°C	ASTM D97	Max18	-21	Pass
Color	-	ASTM D1500	Test & Report	3.5	Pass
Density at 20 °C	g/cm <sup>3</sup>	ASTM D4052	Test & Report	0.8865	Pass

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Allahverdiyeva Aytan Head of Laboratory

Isgandarli Nazrin Chemical Engineer



Quality Assurance Laboratory Q Address: 1, Kimyachilar st., SCIP., Sumgait, Azerbaijan, AZ5002 B Email: lab@azlub.com

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# CERTIFICATE OF ANALYSIS

Accreditation No: AZS ISO/IEC 17025:2020/AZ 01.0571.01.21

From: ALCO LLC

3, Vali Mammadov st., Sabail dist. AZ1095, Baku, Azerbaijan Certificate No.: 2023071024 Date of issue: 07/07/2023

## Test sample

Product: AVTOIL INDUSTRIAL HYDRAULIC I-20A Material ID: M0000174 Date of sampling: 07/07/2023 Manufacture date: 07/07/2023 Batch number: 23071024 Tank ID: T41.2

#### Test result

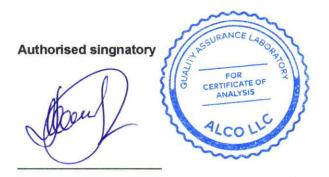
Date of analysis: 07/07/2023

Parameters	Unit	Test result	Limit	Test method	Conclusion
Appearance	-	Bright & Clear	Bright & Clear	Visual	Pass
Kinematic viscosity at 40 °C	mm²/s	30.12	29.0-35.0	ASTM D445	Pass
Viscosity index	-	99	Test & Report	ASTM D2270	Pass
Water content	%	None	Max. 0.05	ASTM D95	Pass
Flash Point, COC	°C	226	Min. 200	ASTM D92	Pass
Pour Point	°C	-18	Max15	ASTM D97	Pass
Color	-	0.3	Max. 1.0	ASTM D1500	Pass
Density at 20 °C	g/cm <sup>3</sup>	0.8677	Max. 0.890	ASTM D4052	Pass

Shelf life: 5 years from the date of manufacture of the product if proper storage conditions are followed.

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Accreditation No: AZS ISO/IEC 17025:2020/AZ 01.0571.01.21

From: ALCO LLC

3, Vali Mammadov st., Sabail dist. AZ1095, Baku, Azerbaijan Certificate No.: 202306896 Date of issue: 19/06/2023

## Test sample

Product: AVTOIL INDUSTRIAL HYDRAULIC I-40A	Manufacture date: 19/06/2023
Material ID: T0000174	Batch number: 2306896
Date of sampling: 19/06/2023	Tank ID: T41.2

## Test result

Date of analysis: 19/06/2023

Parameters	Unit	Test result	Limit	Test method	Conclusion
Appearance	-	Bright & Clear	Bright & Clear	Visual	Pass
Kinematic viscosity at 100 °C	mm²/s	64.64	61.0-75.0	ASTM D445	Pass
TAN	mg KOH/g	0.006	Max. 0.05	ASTM D974	Pass
Water content	%	None	Max. 0.05	ASTM D95	Pass
Flash Point, COC	°C	230	Min. 220	ASTM D92	Pass
Pour Point	°C	-18	Max15	ASTM D97	Pass
Color	-	2.1	Test & Report	ASTM D1500	Pass
Density at 20 °C	g/cm <sup>3</sup>	0.8707	Max. 0.900	ASTM D4052	Pass

Shelf life: 5 years from the date of manufacture of the product if proper storage conditions are followed.

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From: ALCO LLC 3, Vali Mammadov st., Sabail dist. AZ1095, Baku, Azerbaijan Certificate No.: 202307996 Date of issue: 07/07/2023

## Test sample

Product: AVTOIL M10DM Material ID: M00047 Date of sampling: 07/07/2023 Manufacture date: 07/07/2023 Batch number: 2307996 Tank ID: T41.2

## Test result

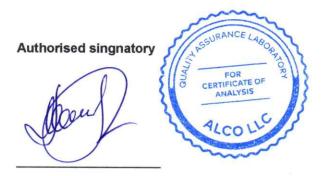
Date of analysis: 07/07/2023

Parameters	Unit	Test result	Limit	Test method	Conclusion
Appearance	-	Bright & Clear	Bright & Clear	Visual	Pass
Kinematic viscosity at 100 °C	mm²/s	11.83	Min. 11.40	ASTM D445	Pass
Viscosity index	-	99	Min. 90	ASTM D2270	Pass
Water content	%	None	Max. 0.05	ASTM D95	Pass
Flash Point, COC	°C	246	Min. 220	ASTM D92	Pass
Pour Point	°C	-21	Max18	ASTM D97	Pass
Color, with a dilution of 15:85, units of the CNT	-	0.9	Max. 3.5	ГОСТ 20284	Pass
Density at 20 °C	g/cm <sup>3</sup>	0.8843	Max. 0.900	ASTM D4052	Pass

Shelf life: 5 years from the date of manufacture of the product if proper storage conditions are followed.

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From: ALCO LLC

3, Vali Mammadov st., Sabail dist. AZ1095, Baku, Azerbaijan Certificate No.: 202307995 Date of issue: 07/07/2023

#### Test sample

Product: AVTOIL M-10G2K Material ID: M00056 Date of sampling: 07/07/2023 Manufacture date: 07/07/2023 Batch number: 2307995 Tank ID: T41.1

#### Test result

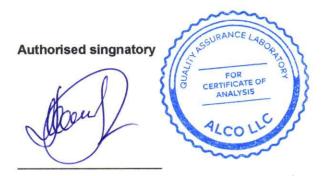
Date of analysis: 07/07/2023

Parameters	Unit	Test result	Limit	Test method	Conclusion
Appearance	-	Bright & Clear	Bright & Clear	Visual	Pass
Kinematic viscosity at 100 °C, min.	mm²/s	11.23	10.5-11.5	ASTM D445	Pass
Viscosity index	-	97	Min. 85	ASTM D2270	Pass
Water content	%	None	Max. 0.05	ASTM D95	Pass
Flash Point, COC	°C	248	Min. 210	ASTM D92	Pass
Pour Point	°C	-18	Max15	ASTM D97	Pass
Color, with a dilution of 15:85, units of the CNT	.=1	0.9	Max. 4.0	FOCT 20284	Pass
Density at 20 °C	g/cm <sup>3</sup>	0.8865	Max. 0.905	ASTM D4052	Pass

Shelf life: 5 years from the date of manufacture of the product if proper storage conditions are followed.

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# ALCO QUALITY ASSURANCE LABORATORY TEST REPORT

Accreditation No: AZS ISO/IEC 17025:2020/AZ 01.0571.01.21



Company: ALCO LLC 3, Vali Mammadov st., Sabail dist. AZ1095, Baku, Azerbaijan **Certificate No.:** 202416 **Date of issue:** 05/01/2024

### Test sample

Product: AVTOIL TAP-15B SAE 90 GL-3 Batch number: 2401016 Tank ID: T41.3 Manufacture date: 05/01/2024 Date of sampling: 05/01/2024 Date of analysis: 05/01/2024

#### Test result

Parameters	Unit	Test method	Limit	Test result	Conclusion
Appearance	-	Visual	Bright & Clear	Bright & Clear	Pass
Kinematic viscosity at 100 °C	mm²/s	ASTM D445	14.00-16.00	15.19	Pass
Viscosity index	-	ASTM D2270	Min. 90	93	Pass
Water content	%	ASTM D95	Max. 0.05	None	Pass
Flash Point, COC	°C	ASTM D92	Min. 185	254	Pass
Pour Point	°C	ASTM D97	Max20	-20	Pass
Density at 20 °C	g/cm <sup>3</sup>	ASTM D4052	Test & Report	0.8872	Pass

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Shelf life: 5 years from the date of manufacture of the product if proper storage conditions are followed.

This product meets the specification set out in its product data sheet (PDS) and has been manufactured in a facility fully complying with the requirements of Integrated Management System standards.

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Isgandarli Nazrin Chemical Engineer



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