Deutsche Akkreditierungsstelle

Annex to the Accreditation Certificate D-PL-20281-01-01 according to DIN EN ISO/IEC 17025:2018

Valid from: **08.01.2026**

Date of issue: 26.01.2026

This annex is part of the Accreditation Certificate D-PL-20281-01-00.

Holder of the Accreditation Certificate:

Deutsche Ölwerke Lubmin GmbH
Freesendorfer Weg 4, 17509 Lubmin

with the location

Deutsche Ölwerke Lubmin GmbH
Freesendorfer Weg 4, 17509 Lubmin

The testing laboratory meets the requirements of DIN EN ISO/IEC 17025:2018 to carry out the conformity assessment activities listed in this annex. The testing laboratory meets additional legal and normative requirements, if applicable, including those in relevant sectoral schemes, provided that these are explicitly confirmed below.

The management system requirements of DIN EN ISO/IEC 17025 are written in the language relevant to the operations of testing laboratories and they conform to the principles of DIN EN ISO 9001.

Tests in the fields:
Chemical and physical-chemical testing of mineral oil and related products; Selected properties of lubricants such as engine oils, gear oils and hydraulic oils

Flexible Scope of Accreditation:

The testing laboratory is permitted to use standardised or equivalent test methods listed here with different issue dates without being required to prior inform and obtain approval from DAkkS (flexibilization according to category A).

The testing laboratory has an up-to-date list of all test methods within the flexible scope of accreditation. The list is publicly available on the website of the testing laboratory.

Content

1 Automotive Oils

Test Method	Title	Process-Matrix-Number[+)]
Density		**5.1.22**
DIN EN ISO 12185 2024-06	Crude petroleum, petroleum products and related products - Determination of density - Laboratory density meter with an oscillating U-tube sensor	
Determination of kinematic viscosity using the Ubbelohde viscometer		**-.-.-**
DIN 53000-1 2023-07	Viscometry - Measurement of kinematic viscosity by means of the Ubbelohde viscometer - Part 1: Viscometer specification and measurement procedure	
Kinematic viscosity		**5.1.54**
DIN 51659-2 2017-02	Lubricants - Test methods - Part 2: Determination of the kinematic viscosity of used lubricating oils by Stabinger viscometer	
ASTM D 7042 2025	Standard Test Method for Dynamic Viscosity and Density of Liquids by Stabinger Viscometer (and the Calculation of Kinematic Viscosity)	
HTHS		
ASTM D 5481 2021	Standard Test Method for Measuring Apparent Viscosity at High-Temperature and High-Shear Rate by Multicell Capillary Viscometer	-.-.-
ASTM D 4683 2025	Standard Test Method for Measuring Viscosity of New and Used Engine Oils at High Shear Rate and High Temperature by Tapered Bearing Simulator Viscometer at 150 °C	5.1.288
Viscosity of Engine Oils at Low Temperature		**5.1.120**
ASTM D 5293 2020	Standard Test Method for Apparent Viscosity of Engine Oils and Base Stocks Between -10 °C and -35 °C Using Cold-Cranking Simulator	
Calculation of the viscosity index from the kinematic viscosity		**5.1.171**
DIN ISO 2909 2004-08	Petroleum products - Calculation of viscosity index from kinematic viscosity	

Test Method	Title	Process-Matrix-Number[+)]
Noack Evaporation loss		**5.1.141**
ASTM D 5800 2021	Standard Test Method for Evaporation Loss of Lubricating Oils by the Noack Method	
Determination of the flash point in an open cup according to Cleveland		**5.1.28**
DIN EN ISO 2592 2018-01	Petroleum and related products - Determination of flash and fire points - Cleveland open cup method	
Pourpoint		**-.-.-**
ASTM D 7346 2015	Standard Test Method for No Flow Point and Pour Point of Petroleum Products and Liquid Fuels	
Determination of colour		**5.1.26**
DIN ISO 2049 2001-06	Petroleum products - Determination of colour (ASTM scale)	
Analysis by infrared spectrometry		**5.1.166**
DIN 51451 2024-03	Testing of petroleum products and related products - Analysis by infrared spectrometry - General working principles	
Base Number - Determination by Potentiometric Perchloric Acid Titration		**5.1.70**
ASTM D 2896 2021	Standard Test Method for Base Number of Petroleum Products by Potentiometric Perchloric Acid Titration	
Additive Elements		**-.-.-**
ASTM D 7751 2016	Standard Test Method for Determination of Additive Elements in Lubricating Oils by EDXRF Analysis	
Viscosity of Engine Oils at Low Temperatur		**5.1.120**
ASTM D 4684 2020a	Standard Test Method for Determination of Yield Stress and Apparent Viscosity of Engine Oils at Low Temperature	
Determination of sulfated ash		**5.1.93**
DIN 51575 2016-06	Testing of mineral oils - Determination of sulfated ash	

2 Gear Oils

Test Method	Title	Process-Matrix-Number[+)]
Density		**5.2.22**
DIN EN ISO 12185 2024-06	Crude petroleum, petroleum products and related products - Determination of density - Laboratory density meter with an oscillating U-tube sensor	
Determination of kinematic viscosity using the Ubbelohde viscometer		**-.-.-**
DIN 53000-1 2023-07	Viscometry - Measurement of kinematic viscosity by means of the Ubbelohde viscometer - Part 1: Viscometer specification and measurement procedure	
Kinematic viscosity		
DIN 51659-2 2017-02	Lubricants - Test methods - Part 2: Determination of the kinematic viscosity of used lubricating oils by Stabinger viscometer	-.-.-
ASTM D 7042 2025	Standard Test Method for Dynamic Viscosity and Density of Liquids by Stabinger Viscometer (and the Calculation of Kinematic Viscosity)	5.2.54
Calculation of the viscosity index from the kinematic viscosity		**5.2.171**
DIN ISO 2909 2004-08	Petroleum products - Calculation of viscosity index from kinematic viscosity	
Noack Evaporation loss		**-.-.-**
ASTM D 5800 2021	Standard Test Method for Evaporation Loss of Lubricating Oils by the Noack Method	
Determination of the flash point in an open cup according to Cleveland		**5.2.28**
DIN EN ISO 2592 2018-01	Petroleum and related products - Determination of flash and fire points - Cleveland open cup method	
Pourpoint		**-.-.-**
ASTM D 7346 2015	Standard Test Method for No Flow Point and Pour Point of Petroleum Products and Liquid Fuels	

Test Method	Title	Process-Matrix-Number[+)]
Determination of colour		**5.2.26**
DIN ISO 2049 2001-06	Petroleum products - Determination of colour (ASTM scale)	
Analysis by infrared spectrometry		**-.-.-**
DIN 51451 2024-03	Testing of petroleum products and related products - Analysis by infrared spectrometry - General working principles	
Additive Elements		**-.-.-**
ASTM D 7751 2016	Standard Test Method for Determination of Additive Elements in Lubricating Oils by EDXRF Analysis	
Low-Temperature Viscosity		**5.2.229**
ASTM D 2983 2023	Standard Test Method for Low-Temperature Viscosity of Lubricants Measured by Brookfield Viscometer	

3 Hydraulic Oils (HL, HLP, HVLP)

Test Method	Title	Process-Matrix-Number[+)]
Density		**6.16.170**
DIN EN ISO 12185 2024-06	Crude petroleum, petroleum products and related products - Determination of density - Laboratory density meter with an oscillating U-tube sensor	
Kinematic viscosity at 100 °C		**-.-.-**
DIN 53000-1 2023-07	Viscometry - Measurement of kinematic viscosity by means of the Ubbelohde viscometer - Part 1: Viscometer specification and measurement procedure	
ASTM D 7042 2025	Standard Test Method for Dynamic Viscosity and Density of Liquids by Stabinger Viscometer (and the Calculation of Kinematic Viscosity)	
DIN 51659-2 2017-02	Lubricants - Test methods - Part 2: Determination of the kinematic viscosity of used lubricating oils by Stabinger viscometer	

Test Method	Title	Process-Matrix-Number[+)]
Kinematic viscosity at 40 °C		
DIN 53000-1 2023-07	Viscometry - Measurement of kinematic viscosity by means of the Ubbelohde viscometer - Part 1: Viscometer specification and measurement procedure	6.16.118
ASTM D 7042 2025	Standard Test Method for Dynamic Viscosity and Density of Liquids by Stabinger Viscometer (and the Calculation of Kinematic Viscosity)	-.-.-
DIN 51659-2 2017-02	Lubricants - Test methods - Part 2: Determination of the kinematic viscosity of used lubricating oils by Stabinger viscometer	-.-.-
Viscosity index		**6.16.171**
DIN ISO 2909 2004-08	Petroleum products - Calculation of viscosity index from kinematic viscosity	
Noack Evaporation loss		**-.-.-**
ASTM D 5800 2021	Standard Test Method for Evaporation Loss of Lubricating Oils by the Noack Method	
Determination of the flash point in an open cup according to Cleveland		**6.16.28**
DIN EN ISO 2592 2018-01	Petroleum and related products - Determination of flash and fire points - Cleveland open cup method	
Pourpoint		**-.-.-**
ASTM D 7346 2015	Standard Test Method for No Flow Point and Pour Point of Petroleum Products and Liquid Fuels	
Determination of colour		**6.16.26**
DIN ISO 2049 2001-06	Petroleum products - Determination of colour (ASTM scale)	
Analysis by infrared spectrometry		**6.16.166**
DIN 51451 2024-03	Testing of petroleum products and related products - Analysis by infrared spectrometry - General working principles	

Test Method	Title	Process-Matrix-Number[+)]
Additive Elements		**-.-.-**
ASTM D 7751 2016	Standard Test Method for Determination of Additive Elements in Lubricating Oils by EDXRF Analysis	
Level of contamination		**6.16.207**
ISO 4406 2021-01	Hydraulic fluid power - Fluids - Method for coding the level of contamination by solid particles	

Abbreviations used:

ASTM	American Society for Testing and Materials
DIN	Deutsches Institut für Normung e.V. – German institute for standardization
D	ASTM category „Miscellaneous Materials and Products”
EN	Europäische Norm – European Standard
GmbH	Gesellschaft mit beschränkter Haftung – Limited liability company
IEC	International Electrotechnical Commission
ISO	International Organization for Standardization
PL	Prüflaboratorium – Testing laboratory
Process-Matrix-Number[+)]	Property number of mineral oil matrix (FO-Antrag GB_Mineralöl.xlsx, Vers. 1.2, 11th April 2024)