



REFERENCE MATERIAL List

Test name	Value	Order code	Bottle Volume	Expiration date	Certificate Number	Main Method
GASOLINE						
Density at 15°C	728.7 kg/m3	DE-GA-532	250 ml	07 2022	190300	ASTM D 4052 - ISO 12185
Automatic Distillation (Unleaded)	27°C / 168°C	DI-GA-532	250 ml	07 2022	190312	ASTM D 86 - ISO EN 3405 - IP 123 - DIN 51751
Reid Vapour Pressure	78.9 kPa	VP-GA-532	250 ml	07 2022	190814	ASTM D 323A - EN13016-1 - ASTM D 4953A - ASTM D 5191
Aromatic Content	22.2 % vol	AC-GA-847	250 ml	12 2021	180816	ASTM D 5580
Benzene Content	0.57 % vol	BE-GA-532	250 ml	07 2022	190315	ASTM D 4053 - EN 238 - EN ISO 22854 - ASTM D 6277
Motor Octane Number (Unleaded)	86,4	OM-GA-095	1000 ml	12 2023	190460	ASTM D 2700
	87,5	OM-GA-098	1000 ml	12 2021	160180	
Research Octane Number (Unleaded)	99,1	OR-GA-098	1000 ml	12 2021	160112	ASTM D 2699
	96.9	OR-GA-095	1000 ml	12 2023	16003	

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JET AVIATION Fuel						
Density at 15°C	795.9 kg/m3	DE-KR-564	250 ml	12 2021	180503	ASTM D 4052 - ISO 12185
Freezing Point	- 55.7 °C	FR-KR-564	250 ml	12 2021	180504	ASTM D 2386- ASTM D7153 - ASTM D 7154
Automatic Distillation	152°C / 264°C	DI-KR-564	250 ml	12 2021	180505-17	ASTM D 86 - ISO EN 3405 - IP 123 - DIN 51751
Sulphur of Mercaptans	7.7 mg/kg	SU-KR-564	250 ml	12 2021	180522	ASTM D 3227 – ISO 3012
Acidity	0.0019mgKOH/g	AD-KR-564	250 ml	12 2021	180502	ASTM D 3242
Abel Flash Point	44.7 °C	AB-KR-564	250 ml	12 2021	180501	IP 170 -EN ISO 13736 - NFM 07011
Smoke Point	23.8 mm	SP-KR-564	250 ml	12 2021	180519	ASTM D 1322 - IP 598
Kinematic Viscosity -20°C	3.700 mm²/s	VI-KR-564	250 ml	12 2021	180523	ASTM D 445 - ISO 3104
TAG Flash Point	45,8 °C	FT-KR-564	250 ml	12 2021	180518	ASTM D 56
FIA Aromatics	17.70 % Vol	FI-KR-564	250 ml	12 2021	180521	FIA ASTM D 1319 - EN NF 15553
Aniline Point	58,5 °C	AP-KR-564	250 ml	12 2021	180520	ASTM D 611 - ISO2592 - IP 2/91
Reference Fuel Smoke Point	14.7 up to 42,8 mm	SET-A	7x25ml	12 2021	Edit date of supply	ASTM D 1322 Reference Fuels Table
	14.7 mm	SM-Mix 1	4x25ml	12 2021	Edit date of supply	ASTM D 1322 Reference Fuels Table
	20.2 mm	SM-Mix 2	4x25ml	12 2021	Edit date of supply	ASTM D 1322 Reference Fuels Table
	22.7 mm	SM-Mix 3	4x25ml	12 2021	Edit date of supply	ASTM D 1322 Reference Fuels Table
	25.8 mm	SM-Mix 4	4x25ml	12 2021	Edit date of supply	ASTM D 1322 Reference Fuels Table
	30.2 mm	SM-Mix 5	4x25ml	12 2021	Edit date of supply	ASTM D 1322 Reference Fuels Table
	35.4 mm	SM-Mix 6	4x25ml	12 2021	Edit date of supply	ASTM D 1322 Reference Fuels Table
	42.8 mm	SM-Mix 7	4x25ml	12 2021	Edit date of supply	ASTM D 1322 Reference Fuels Table

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DIESEL						
Density at 15 °C	836,39 kg/m3	DE-GO-888	250 ml	12 2021	1209004	ASTM D 4052 - ISO 12185
	832.1 kg/m3	DE-GO-440	250 ml	07 2022	230820	
Cloud Point	- 3,3 °C	CP-GO-888	250 ml	12 2021	1209003	ASTM D 2500 – NF EN 23015 - ISO 3015 - ASTM D 5773 – ASTM D 5771 – ASTM D 5772
	- 7,7 °C	CP-GO-440	250 ml	07 2022	230802	
CFPP - Cold Filter Plugging Point	-16,1 °C	CF-GO-333	250 ml	12 2021	16091	ASTM D 6371 - EN 116
	-24.4 °C	CF-GO-902	250 ml	07 2022	190301	
Pour Point	-16.1 °C	PP-GO-888	250 ml	12 2021	1209005	ASTM D 97 – NFT 60-105 – ISO 3016 – ASTM D 5949 – ASTM D 6749 – ASTM D 5950 –ASTM D 6892 – ASTM D 5985
	-31.5 °C	PP-GO-440	250 ml	07 2022	230815	
Automatic Distillation	173 °C / 356 °C	DI-GO-440	250 ml	07 2022	182113/182125	ASTM D 86 - ISO EN 3405 - IP 123 - DIN 51751
Pensky Martens	65.9 °C	PM-GO-440	250 ml	07 2022	230804	ASTM D 93 - EN 22719 - ISO 2719 - NFT 60104
Kinematic Viscosity +20°C	4,100 mm²/s	VI-440+20	250 ml	12 2021	230810	ASTM D 445 - ISO 3104
Sulphur Content	7,7 mg/kg	SU-GO-440	250 ml	07 2022	230830	ASTM D 5453 -ISO 20846
Cetane Number	53,5	CN-GO-152	1000 ml	12 2021	141201	ASTM D 613 - ISO 5165
FAME Content	3.42 % Volume	FA-GO-919	250 ml	12 2021	13001	EN 14078 - EN 14103 - ASTM D 7371
	6.94 % Volume	FA-GO-440	250 ml	07 2022	16164	
	97.94 mol/mol	FA-GO-999	250 ml	12 2021	151220	

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LUBRICANT						
Density at 15 °C	868,7 kg/m3	DE-LU-671	250 ml	12 2021	11041204	ASTM D 4052 - ISO 12185
Cleveland Flash Point	268 °C	FC-LU-671	250 ml	12 2021	11041207	ASTM D 92 - ISO 2592 - IP 36/403
Pensky Martens Flash Point	203 °C	PM-LU-456	250 ml	12 2021	11041206	ASTM D 93 - EN 22719 - ISO 2719 - NFT 60103
	242 °C	PM-LU-671	250 ml	12 2021	11041205	
Pour Point	-11.6°C	PP-LU-671	250 ml	12 2021	11041206	ASTM D 97– NFT 60-105 – ISO 3016 – ASTM D 5949 – ASTM D 6749
Kinematic Viscosity at +20°C	299.0 mm²/s	VI-671-+20	250 ml	12 2021	11041209	ASTM D 445 - ISO 3104
Kinematic Viscosity at +40°C	91,6 mm²/s	VI-671-+40	250 ml	12 2021	11041208	ASTM D 445 - ISO 3105
Kinematic Viscosity at +100°C	10,8 mm²/s	VI-671-+100	250 ml	12 2021	11041211	ASTM D 445 - ISO 3104

WEB list 2019- 4 (26/09/2019)

DG-REF-05