



REFERENCE MATERIAL List

Test name	Value	Order code	Bottle Volume	Expiration date	Certificate Number	Main Method	CRM (MRC) ISO 17034	CRM (MRC)
GASOLINE								
Density at 15°C	727.7 kg/m3	DE-GA-847	250 ml	12 2021	18080	ASTM D 4052 - ISO 12185	√	
Automatic Distillation (Unleaded)	27°C / 178°C	DI-GA-847	250 ml	12 2021	1800801/813	ASTM D 86 - ISO EN 3405 - IP 123 - DIN 51751	√	
Reid Vapour Pressure	84.6 kPa	VP-GA-847	250 ml	12 2021	180814	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	0.50 % vol	BE-GA-847	250 ml	12 2021	180815	ASTM D 4053 - EN 238 - EN ISO 22854 - ASTM D 6277		√
Motor Octane Number (Unleaded)	86,3	OM-GA-095	1000 ml	12 2021	16002	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		√
	97	OR-GA-095	1000 ml	12 2021	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	- 55.8 °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	44.3 °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 2019	180523	ASTM D 445 - ISO 3104		√
TAG Flash Point	41.4 °C	FT-KR-564	250 ml	12 2019	180518	ASTM D 56		√
FIA Aromatics	20.1 % Vol	FI-KR-564	250 ml	12 2019	180521	FIA ASTM D 1319 - EN NF 15553		√
Aniline Point	56,6 °C	AP-KR-564	250 ml	12 2019	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	12 2021	230820			
	837.5 kg/m3	DE-GO-185	250 ml	12 2021	16165			
Cloud Point	- 2 °C	CP-GO-185	250 ml	12 2021	16166	ASTM D 2500 – NF EN 23015 - ISO 3015 - ASTM D 5773 – ASTM D 5771 – ASTM D 5772	√	
	- 3,3 °C	CP-GO-888	250 ml	12 2021	1209003			
	- 7,7 °C	CP-GO-440	250 ml	12 2021	230802			
CFPP - Cold Filter Plugging Point	-16 °C	CF-GO-333	250 ml	12 2021	16091	ASTM D 6371 - EN 116	√	
	- 16.5 °C	CF-GO-185	250 ml	12 2021	16163			
	-23.6 °C	CF-GO-209	250 ml	12 2021	12025			
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	12 2021	230815			
	- 21 °C	PP-GO-185	250 ml	12 2021	16167			
Automatic Distillation	173 °C / 356 °C	DI-GO-440	250 ml	12 2021	182113/182125	ASTM D 86 - ISO EN 3405 - IP 123 - DIN 51751	√	
	172 °C / 364 °C	DI-GO-185	250 ml	12 2021	16150 /16162			
Pensky Martens	64,8°C	PM-GO-333	250 ml	12 2021	16090	ASTM D 93 - EN 22719 - ISO 2719 - NFT 60103	√	
	69.9 °C	PM-GO-440	250 ml	12 2021	230804			
	68.5 °C	PM-GO-185	250 ml	12 2021	16171			
Kinematic Viscosity +20°C	4,100 mm²/s	VI-440+20	250 ml	12 2021	230810	ASTM D 445 - ISO 3104		√
	4.445 mm²/s	VI-185+20	250 ml	12 2021	16169			
Sulphur Content	7,7 mg/kg	SU-GO-440	250 ml	12 2021	230830	ASTM D 5453 -ISO 20846		√
	7.10 mg/kg	SU-GO-185	250 ml	12 2021	16168			
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		√
	6.90 % Volume	FA-GO-185	250 ml	12 2021	16164			
	97.94 mol/mol	FA-GO-999	250 ml	12 2021	151220			
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	265 °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		√
	243 °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 2019	11041209	ASTM D 445 - ISO 3104		√
Kinematic Viscosity at +40°C	91,6 mm²/s	VI-671+40	250 ml	12 2019	11041208	ASTM D 445 - ISO 3105		√
Kinematic Viscosity at +100°C	10,8 mm²/s	VI-671+100	250 ml	12 2019	11041211	ASTM D 445 - ISO 3104		√

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