

LEBANESE SPECIFICATIONS OF PETROLEUM PRODUCTS

GAS OIL

PROPERTY	LIMITS	METHOD
Total Sulfur , % m/m	Max 0.2	ASTM D-3246/ D-5453/ ISO6326
Fuel Bound Nitrogen (FBN), %m/m	Max 0.015	ASTM D-4629
Lower Heating Value (LHV), MJ/Kg	Min 42	ASTM D-4809/ DIN 51900
Density at 15 °C, Kg/m ³	Min 820 Max 870	ASTM D-1298/ DIN51757
Kinematic Viscosity at 40 °C, cSt	Max 5.5	D-445
Kinematic Viscosity at 40 °C, cSt	Min 1.3	D-445
Distillation, 90% volume recovered at °C	Max 365	D-86 / ISO3405
Carbon Residue, %m/m	Max 0.15	ASTM D4530/ISO 10370/DIN51551
Oxidation Stability mg/100ml	Max 2.5	ASTM D2274/ IP365/95
Sediment & Water vol%	Max 0.1	ASTM D-2709
Sediment Particulates, mg/kg d<10µm 10≤d≤25µm d≥25µm	Max 20 Max18 Max2 Max0	ASTM D6217/IP415/DIN51419/ DINEN 12662
Water vol%	Max 0.05	D-95
Sediments, mass%	Max 0.01	D-473/ISO3737/DINEN51789/ DINEN 12662
Gum Content mg/100ml	Max 7	ASTM D-381
Pour point (PP) °C	Max 0	ASTM D-97/ ISO 3016
Flash point (FP), °C	Min 60	ASTM D-93/D-56/ ISO 2719
Acid Number mg/g KOH	Max 0.1	ASTM D-664
Ash content, mass%	Max 0.01	ASTM D-482/ ISO 6245/ DIN51575/ DINEN 2645
Sodium + Potassium (NA + K), mg/kg	Max 0.5	ASTM D-3605/ DIN-51790
Vanadium (v), mg/kg	Max 0.5	ASTM D-3605/ DIN-51790
Lead (Pb), mg/kg	Max 1	ASTM D-3605/ DIN-51790
Calcium (ca), mg/kg	Max 1	ASTM D-3605/ DIN-51790
Organic Chloride (cl), mg/kg	Max 6	ASTM D-4929/ ISO15597
These parameters shall be evaluated if Gum content value (washed and/or unwashed > 7mg/100mL)		
Carbon ©, %mass	85-87.5	D-5291 / DIN-51721
Hydrogen (H), %mass	11-14.5	D-5291 / DIN-51721
Oxygene (O), %mass	<0.2	D-5291 / DIN-51721
Distillation range, °C	The reference is the boiling curve in ASTM D86, where the evaluated curve should show a slope and shape parallel to this reference, i.e.: -strong deviations to higher temprature indicate an increased potential for forming soot during combustion, which is not acceptable. -strong deviations to lower temperature with initial boiling points <100°C indicate volatile fuel fractions, which is not acceptable.	D-86/ ISO 3405
50 % evaporated		
65 % evaporated		
90 % evaporated		
End point		
Cold filter Plugging point (CFPP), °C	Fuel temprature> 10°C+CFPP	D-637 / EN-116