



PRODUCT SPECIFICATION

SPECIFICATION

Product Name: **GRADO LPG 20W-50**

PRIMARY TESTS	METHOD	SPECIFICATION		
		MIN	TYP	MAX
Appearance	Visual	Clear and Bright		
Colour		Green		
Density 15 °C, g/ml	ASTM D4052 / TS EN ISO 12185	0.870	0.890	0.900
Kinematic Viscosity 100 °C, mm ² /s	ASTM D445 / TS EN ISO 3104	18	19	21
Kinematic Viscosity 40 °C, mm ² /s	ASTM D445 / TS EN ISO 3104	150	170	190
Viscosity Index	ASTM D2270 / TS ISO 2909	120	122	
T.B.N. mgKOH/g	ASTM D2896 / TS ISO 3771	5		
Cold Cracking (-15 °C), cp	ASTM D5293 / TS 1896			9500

SECONDARY TESTS	METHOD	SPECIFICATION		
Pour Point, °C	ASTM D97 / TS EN ISO 3016			-21
Flash Point, °C (COC)	ASTM D92 / TS EN ISO 2592	230		
Evaporation Loss, %m/m	ASTM D5800 / TS 13489			15
Predicting the Borderline Pump. Temp. °C (-20 °C)	TS 4409			60000
Foaming Characteristic (II Kd.) ml/ml	ASTM D892 / TS 1834 ISO 6247			50/0
Sulfated Ash %m/m	ASTM D874 / TS ISO 3987			3
Copper Corrossion (100 °C, 3 hours)	ASTM D130 / TS 2741 EN ISO 2160			1b
Tapered Bearing Viscosity, 150 °C, mm ² /s	TS 8416	3.7		

PERFORMANCE LEVELS: API: SG / CD

Document Code	Revision No/Date	Page No	Prepared	Checked	Approved
KG-ÜS-309	06/16.10.2023	1/1	FACTORY HSEQ & LAB. MANAGER	MANAGEMENT REPRESENTATIVE	FACTORY MANAGER

* As the defined values are typical values, there can be some little changes according to the production. M Oil keeps all the rights to update and change the formulations of products without making any announcements. For the updated informations and technical data about the products and product packagings, please contact with M Oil.