



ETRO®
HIGH QUALITY GROUP III+ BASE OILS





PETRONAS ETRO 4+ and ETRO 6+ High Quality Group III+ Base Oils

PETRONAS ETRO 4+ and ETRO 6+ are high quality Group III+ base oils manufactured from a unique feedstock by using a proprietary hydrotreatment and wax isomerisation process, and hydrofinished to a colourless liquid. These base oils are highly isoparaffinic and exhibit a very high viscosity index as well as superior low-temperature performance. Both have an excellent viscosity-volatility relationship.

Applications

PETRONAS ETRO 4+ and ETRO 6+ are the preferred choices for formulating high-performance, low-viscosity engine oils because of their superb viscometrics and low volatility. These base oils are also suitable for use in industrial equipment such as compressors, hydraulic systems, gears and turbines.

Properties

-  Very high viscosity index
-  Excellent volatility for low-viscosity engine oils
-  Superior low-temperature performance
-  Good oxidation stability

Formulation Support

PETRONAS ETRO 4+ and ETRO 6+ are supported by top-tier engine oil formulations that meet the requirements for:

-  API SN+
-  ILSAC GF-5
-  ACEA 2016
-  OEM specifications

Characteristics

PROPERTIES	TEST METHODS	UNITS	SPECIFICATION VALUE		TYPICAL VALUE	
			ETRO 4+	ETRO 6+	ETRO 4+	ETRO 6+
APPEARANCE	VISUAL		BRIGHT & CLEAR		BRIGHT & CLEAR	
DENSITY	ASTM D 4052	kg/L	-		0.830	0.8421
COLOUR	ASTM D 156		+30		+30	
VISCOSITY @ 40°C	ASTM D 445	mm ² /s	-		18.30	32.87
VISCOSITY @ 100°C	ASTM D 445	mm ² /s	4.05 – 4.25	5.80 – 6.20	4.15	6.04
VISCOSITY INDEX	ASTM D 2270		≥ 130		132	
POUR POINT	ASTM D 97	°C	≤ -15		-18	
FLASH POINT	ASTM D 92	°C	≥ 200	≥ 220	220	238
EVAPORATION LOSS – NOACK	ASTM D 5800	mass %	≤ 15.0	≤ 8.0	13.2	5.7
SATURATES	IP 368	mass %	> 95		>99	
SULPHUR CONTENT	ASTM D 2622	mg/kg	≤ 10		2	
CCS VISCOSITY						
@ -30°C	ASTM D 5293	mPa.s	-		1,170	3,970
@ -35°C	ASTM D 5293	mPa.s	-		2,070	7,560

All technical data provided for reference only.

Customer Advice

For further assistance on product MSDS, recommendations or technical queries, please contact the regional technical services engineers or HQ technical engineers at etro.corp@pli-petronas.com

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