

Product Data Sheet



PETRONAS

ETRO 4+

High Quality Group III+ Base Oil

ETRO 4+ is a high-quality Group III+ base oil, manufactured from a unique feedstock by using a proprietary hydro-treatment and wax isomerization process and hydrofinished to a colourless liquid. The base oil is highly isoparaffinic and exhibits a very high viscosity index as well as superior low-temperature performance. It has an excellent viscosity-volatility relationship.

Applications

ETRO 4+ is the preferred choice for formulating cost effective, high-performance, low-viscosity engine oils due to its superb viscometrics and low volatility. This base oil is also suitable for application in industrial equipment, such as compressors, hydraulic systems, gears and turbines.

Features and Benefits

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

Formulation Support

ETRO 4+ application is supported with top-tier engine oil formulations that meet the requirements for:

- API SP and API SP-RC
- ILSAC GF-6A and GF-6B
- ACEA 2016
- GM dexos1 Gen. 2
- OEM Specifications

Properties

Properties	Test Methods	Units	Specification Value	Typical Value
Appearance	Visual		Bright & Clear	Bright & Clear
Density	ASTM D 1298 / D 4052	kg/L	Report	0.8307
Colour	ASTM D 1500		L 0.5 Max	L 0.5
Viscosity @ 40 °C	ASTM D 445	mm ² /s	Report	18.15
Viscosity @ 100 °C	ASTM D 445	mm ² /s	4.05 – 4.25	4.13
Viscosity Index	ASTM D 2270		≥ 130	132
Pour Point	ASTM D 97 / D 5950	°C	≤ -15	-18
Flash Point	ASTM D 92	°C	≥ 200	220
Evaporation Loss - Noack	ASTM D 5800-B	mass %	≤ 15.0	13.0
Saturates	IP 368 / ASTM D 7419	mass %	> 95	> 99
Sulphur Content	ASTM D 2622 / D 5453	mg/kg	≤ 10	6
CCS Viscosity @ -30 °C @ -35 °C	ASTM D 5293	mPa.s	< 1350 Report	1,160 2,030

Product Data Sheet

ETRO 4+

High Quality Group III+ Base Oil



PETRONAS