

A Subsidiary of PETRONAS Chemicals Group

# Viscotech® Viscosity Modifiers

Flowing your way

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#### Tailored solutions

## The Viscotech® line-up

From olefin copolymers (OCP) to styrene-based viscosity modifiers, our products deliver the performance profile your formulation needs for smooth operation over a wide range of temperatures. In line with our innovation strategy of not only addressing the challenges our customers face, but also anticipating their future needs, BRB Lube Oil Additives & Chemicals never stands still. We continue to develop the Viscotech® line-up to meet the growing need for resource efficiency.

The Viscotech® range is designed to optimise both shear stability and thickening efficiency in balance to deliver the best properties in each specific application. By balancing shear stability index (SSI) and thickening efficiency (TE), our solutions enable treat rate optimisation that improves engine performance, durability and fuel economy. A family of advanced non-dispersant OCP VMs, the Viscotech® 6-series is designed for multi-grade engine oils and industrial lubricants. The Viscotech® styrene-based 4- and 5-series VMs are suitable for top-tier multi-grade oils.



## Viscotech® 6540 and 6540L 😝 😂



**Versatile OCP viscosity modifiers** 

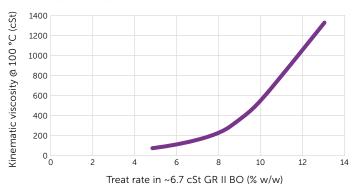
#### For automotive and industrial lubes

The advanced non-dispersant OCP viscosity modifiers in the Viscotech® 6-series include solid variants (6540) and liquid options (6540L). They are designed for use in multi-grade engine oils and industrial lubricants. The versatile additives deliver excellent low-temperature results and can be used with selected pour point depressants (PPDs), such as Petrolad® 7072, in a package solution. In addition, they can be customised to achieve various viscosity properties (cSt) that are in high demand.

#### **Benefits:**

- Excellent low-temperature properties, including in combination with high-paraffin base oils
- Cost-effectiveness thanks to a favourable treat rate and suitability for multiple applications
- Outstanding compatibility with GR I, II and III base stocks

#### Thickening efficiency of Viscotech® 6540



### Viscotech® 6073LR



OCP viscosity modifier dissolved in re-refined base oil

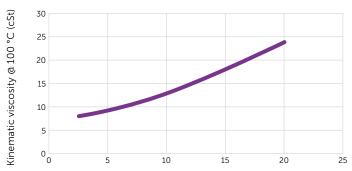
#### For chain oils

The liquid viscosity modifier Viscotech® 6073LR, with a shear stability index (SSI) of 70, is suitable for use in oils that prevent severe wear and can withstand high loads in moving chains across specific industrial segments. In addition, it is dissolved in re-refined GR I base oil. That means it delivers benefits in line with positive environmental sustainability trends, while offering cost-effectiveness and outstanding performance.

#### **Benefits:**

- A contribution to environmental sustainability through circular economy
- Performance equivalent to traditionally dissolved OCP viscosity modifiers
- Economical treat rate

#### Thickening efficiency of Viscotech® 6073LR



Treat rate in a 6.50 cSt GR II BO formulation (% w/w)

### Viscotech® 494L



#### Premium styrenic viscosity modifier

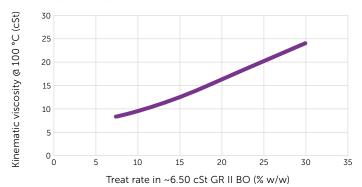
#### High performance in engine oils

A liquid styrenic solution that offers excellent shear stability (SSI 7) and dissolves well in GR III base oil. Viscotech® 494L is a premium product designed for formulations like top-tier, multi-grade oils to meet the demands of today's top-quality diesel and petrol engine oils. A proven solution used by many of the largest lubricant manufacturers worldwide, it offers long-term stability coupled with a broad thermal coverage.

#### **Benefits:**

- Excellent SSI for long-term lubricant durability in multi-grade systems
- Outstanding thickening efficiency (TE)
- Enhanced performance at low and high temperatures throughout its service life
- Trusted by major oil blenders

#### Thickening efficiency of Viscotech® 494L



### Viscotech® 533L 1600 cSt and 535L



Multi-purpose, liquid styrenic viscosity modifiers



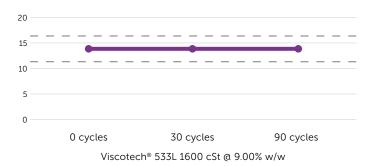
#### **Future-oriented liquid solutions**

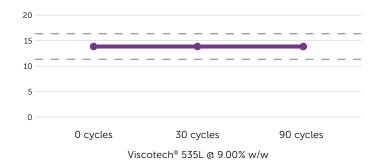
The liquid VMs possess high shear stability (SSI 3) thanks to their special solid star-shaped styrenic polymer. Viscotech® 533L 1600 cSt dissolves well in GR II base oils, while Viscotech® 535L is readily soluble in GR III base oils and is also suitable for next-generation engine lubes – for example, in low-viscosity grades like 0W-XX. Both deliver outstanding performance in multi-grade formulations and meet the exacting specifications and performance demands of today's diesel and petrol engine oils. The star-shaped architecture enables exceptional versatility: in addition to automotive applications, they are ideal alternatives to PMA solutions in certain viscosity grades of hydraulic fluids.

#### **Benefits:**

- Support clean and fuel-efficient operation of diesel and petrol engines
- Lasting excellent SSI in automotive and hydraulic systems
- Superior filterability and lower degradation for an extended service life
- Broad thermal coverage
- 535L meets the stringent demands of ever-lower viscosity grades – 5W-XX and even 0W-XX

Shear stability performance (cSt) in 5W-40 automotive blend, KV @ 100 °C, Bosch 90 cycles (ASTM D7109)





### Viscotech® 483L 1200 cSt



High-quality styrenic viscosity modifier

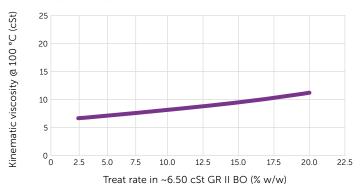
#### Proven outstanding performance and wide thermal coverage

A highly shear-stable, liquid styrenic VM (10 SSI), Viscotech® 483L 1200 cSt is soluble in GR II base oils. The high-quality solution is designed for modern, multi-grade diesel and petrol engine oil systems that must meet the most stringent performance requirements. Its excellent properties throughout a wide thermal range have been proven by major European automotive customers.

#### **Benefits:**

- Excellent shear stability (10 SSI) thanks to its solid polymer
- Superb low-temperature properties
- Supports optimal high-temperature viscosity throughout the oil's lifespan
- Proven automotive performance with major European customers

#### Thickening efficiency of Viscotech® 483L 1200 cST



### **Abbreviations**

BO = base oil

CCS = cold-cranking simulator

HTHS = high-temperature, high-shear

KV = kinematic viscosity

LR = liquid re-refine

PPD = pour point depressant

SSI = shear stability index

TE = thickening efficiency

TR = treat rate (referring to additive dosages)

VG = viscosity grade

VI = viscosity index



### Viscotech®\*

Viscosity modifiers		
Olefin copolymer (OCP) types	Solid	Viscotech® 6540
		Viscotech® 6640
		Viscotech® 6545(L)
		Viscotech® 6550
		Viscotech® 6073
	Liquid	Viscotech® 6073LR
		Viscotech® 6540L
		Viscotech® 6540LP
Styrenic types	Solid	Viscotech® 483
	Liquid	Viscotech® 483L
		Viscotech® 494L
		Viscotech® 494LD
		Viscotech® 533L
		Viscotech® 535L
		Viscotech® 536L



### Petrolad®\*

Engine oil additives	
Passenger car motor oils (PCMO)	Petrolad® 8770
and heavy-duty diesel oils (HDDO)	Petrolad® 8771SC
Passenger car motor oils (PCMO)	Petrolad® 9200(G)
Driveline additives	
Gear oil	Petrolad® 336
	Petrolad® 336EP
	Petrolad® 339
Automatic transmission fluids	Petrolad® 743EU
(ATF)	
Off-road	
Universal tractor transmission oil	Petrolad® 5101
(UTTO)	
Super tractor universal (STOU)	Petrolad® 5201
	Petrolad® 8134

Hydraulic additives	
Ashless	Petrolad® 1846
Zinc-containing	Petrolad® 9530
	Petrolad® 9533
Sulphonates	
Overbased calcium sulphonate detergent	Petrolad® 6779(A)
Coolants	
	Petrolad® 3550
	BRB Long life coolant

<sup>\*</sup>Please note that this is an excerpt only. To find out more, visit our Website www.brb-international.com/lac

