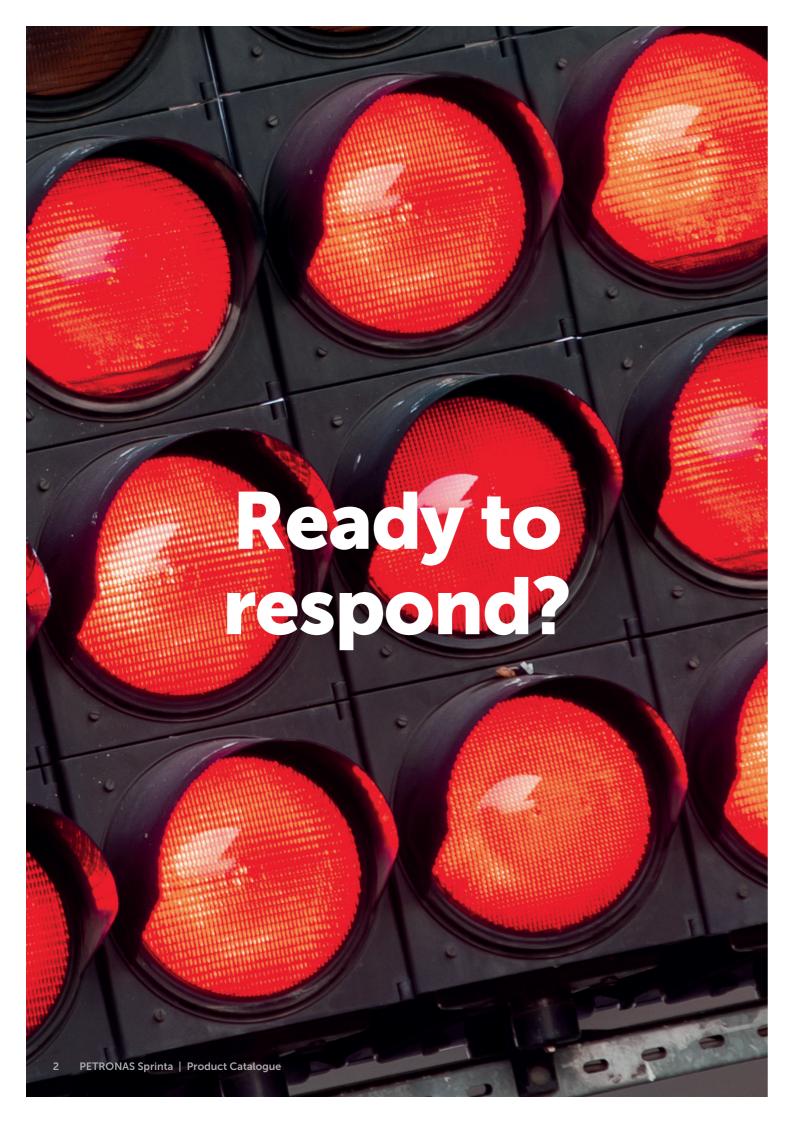


PETRONAS Sprinta with UltraFlex™ technology is engineered to come alive – reacting immediately to flex to the different demands of all your bike's critical areas, providing instant response for exceptional defence and performance so you can get ahead.







The world is more testing than ever

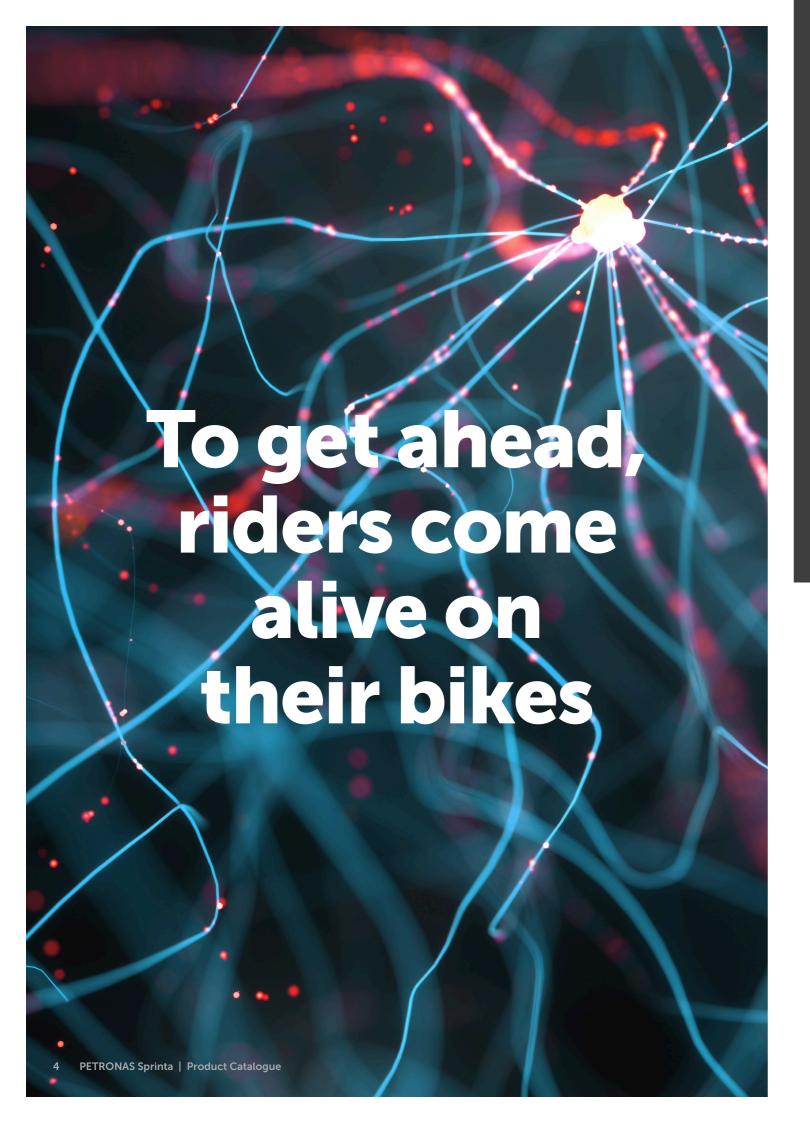
Our cities are expanding. Roads are getting busier. People everywhere are racing forward - many of them on two wheels, in this ever-changing world of unexpected twists and turns, obstacles and opportunities.

Riders must be ready to respond instantly and so must their bikes

However, when a biker responds as rapidly as their environment requires, it places a number of demands on the bike's critical areas – the engine, clutch and gears – all at once.

It makes gear changes less responsive and increases the risk of clutch slips and power loss, which can be incredibly dangerous in situations where instant reactions are critical.

The daily stresses within your engine wear out moving parts quickly, which can be dangerous and costly in terms of maintenance and safety. It can also impact engine performance and power output, and affect the riding experience.



Core product story

How PETRONAS Sprinta with UltraFlex™ technology delivers the instant response you need

On today's overcrowded roads, when you're surrounded by traffic and elbow-toelbow with other motorcyclists, you need to come alive and respond instantly.

The same is true of your bike...

Within a motorcycle's engine, oil is used to reduce the damage caused by gear scuffing, grinding and metal-to-metal contact but conventional oil doesn't necessarily manage all of these areas all at once, or as efficiently and instantly as it should.

PETRONAS Sprinta with **UltraFlex™** technology delivers an instant response, flexing to the multitude of demands in the bike's critical areas - the engine, clutch and gears - all at once.

- Engineered to come alive, delivering an instant response to rapidly changing road conditions
- Enables motorcycles to perform responsively from a cold start, in traffic and out on the open road
- Has a unique oil formulation that reacts instantly and flexibly - providing exceptional defence and performance.

The oil's unique formulation activates immediately...



Instant Response

..delivering control to deposits, viscosity and wear, plus resists stress and heat.

It maintains power, prevents clutch slippage and delivers responsive shifting..

> ...and enhances oil stability to flex and flow, responding instantly to the bike's multiple demands.

Key features and benefits

Overview

UltraFlex™ technology activates instantly, lubricating the clutch to create grip that prevents slipping and maintains power – reaching all the gears to deliver responsive shifting.

The same technology delivers outstanding deposit and viscosity control to resist stress and heat, protecting moving parts against wear.

In addition, its unique formulation is designed to meet the latest and most stringent global environmental standards too. In summary, PETRONAS Sprinta is developed to deliver:



Instant performance

PETRONAS Sprinta with UltraFlexTM technology activates instantly, flowing smoothly and consistently to lubricate the engine, surging to the clutch to create grip that prevents slippage and maintains power, and reaching the gears to deliver responsive shifting.



Instant defence

PETRONAS Sprinta with UltraFlex™ technology instantly delivers outstanding deposit and viscosity control to resist stress and heat, protecting moving parts against wear to keep maintenance bills down and your bike out on the road, where it belongs.



Instant care

PETRONAS Sprinta with UltraFlexTM technology has a formulation that meets the latest global environmental standards. We're committed to sustainable mobility, investing in innovative R&T projects to improve air quality for riders all over the world.

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Instant performance, defence and care for your motorcycle

PETRONAS Sprinta with **UltraFlexTM** technology activates instantly to overcome the challenges of modern driving conditions – flowing smoothly and consistently to lubricate the engine, create grip in the clutch, and deliver more responsive gear shifting.

Engine challenges -

Intense use, heavy traffic, inner-city short runs and high RPM can:

- Generate foam in the oil, leading to **power** loss and poor heat dissipation
- Create harmful engine deposits, which slow moving parts down, leading to excess friction.

PETRONAS Sprinta solution

- Offers up to 50% lower foam creation than the API SN limit, enhancing engine performance and maintaining heat dissipation
- Delivers up to 80% better deposit control than the API SN limit for optimised bike performance and durability.

Clutch challenges -

The clutch is a unique system that requires the correct level of grip and friction to:

- Transfer the power from the engine to the wheels effectively
- Enable smooth gear changes and resist aggressive downshifting and releasing.

PETRONAS Sprinta solution

- Creates the perfect amount of grip in the clutch to avoid slipping and maintain power
- Delivers the right friction coefficient rate to maintain optimal performance and prevent clutch wear.



Gear challenges

High pressure and stress in the gears can create pitting, scuffing and wear, which leads to:

- Higher friction with loss of performance, temperature increase and excessive noise
- Possible damage and breakage of gear teeth, making the bike unusable.

PETRONAS Sprinta solution

- Performs up to 83% better in pitting control tests, compared to API SL oil, for rapid, smooth gear changes
- Offers high shear stability to prevent wear above and beyond the recommended JASO limits.

Overreaching challenges

Heavy traffic can put extra loads through the engine and create higher temperatures, which causes:

 Oil to thicken through oxidation, leading to a loss of performance and fuel efficiency, and increased wear.

PETRONAS Sprinta solution

- Delivers up to 82% better wear control than the API SN industry limit, for longer engine life
- Offers up to 80% lower viscosity increase than the API SL limit for better fuel efficiency
- Contains up to 50% less Sulphur than the industry limit for better catalyst durability.

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Instant performance, defence and care for your motorcycle

PETRONAS Sprinta with **UltraFlexTM** technology activates instantly to overcome the challenges of modern driving conditions – flowing smoothly and consistently to lubricate the engine, create grip in the clutch, and deliver more responsive gear shifting.

Overarching Benefits (All Components)

- Delivers up to 82% better wear control than the API SN industry limit, for longer engine life
- Offers up to 80% lower viscosity increase than the API SL limit for better fuel efficiency.



Engine

- Offers up to 50% lower foam creation than the API SN limit, enhancing engine performance and maintaining heat dissipation
- Delivers up to 80% better deposit control than the API SN limit for optimised bike performance and durability.

Gears

- Performs up to 83% better in pitting control tests, compared to API SL oil, for rapid, smooth gear changes
- Offers high shear stability to prevent wear above and beyond the recommended JASO limits.

Catalyst

 Contains up to 50% less
 Sulphur than the industry limit for better catalyst durability.

Clutch

- Creates the perfect amount of grip in the clutch to avoid slipping and maintain power
- Delivers the right friction coefficient rate to maintain optimal performance and prevent clutch wear.

Foam resistance and low friction

Challenge

Engine oil has the tendency to generate foam, especially when exposed to high RPM and intense use, which are typical conditions in a bike's engine.

The subsequent rapid and vigorous shaking that a lubricating oil is exposed to in these conditions creates the undesired foam, which can strongly impact on lubricant performance.

Foam creation leads to power loss due to an increase of friction, with weak film strength and poor heat dissipation.

Foaming limitation is therefore an important attribute for your oil to have...

Solution

PETRONAS Sprinta demonstrates excellent performance in foam containment, far below the recommended API limits.

Benefit

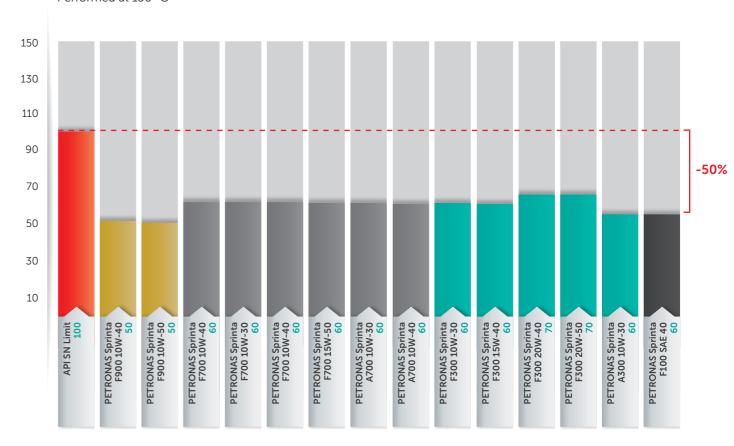
PETRONAS Sprinta with UltraFlex™ technology enhances engine performance at high RPM by maintaining film strength, low friction and proper heat dissipation..

Prevents power loss

through maintaining film strength, low friction and effective heat dissipation. PETRONAS Sprinta has up to 50% lower Foam Creation than the API SN limit.

Foaming Sequences ml of foam formed

Foam, Seq, IV Tendency Performed at 150 °C



Testing carried out according to ASTM D4951.



Stress and pressure resistance

Challenge

Pitting is one of the main problems that could affect your gears. Defined as the surface fatigue, or failure, of your motorbike gear teeth, the formation of pitting generates higher friction on your gears.

This friction results in heat production, temperature increase, excessive noise, and loss of performance.

Excessive and uncontrolled pitting can lead to the breakage of gear teeth, making your bike unusable as well as putting your safety at risk.

Solution

Because of the extreme damage that pitting can cause, PETRONAS Sprinta has been designed with the support of a third-party, in-house computer modelling system to allow us to predict performance.

Through this approach, we're able to prove that PETRONAS Sprinta is 83% better in pitting control tests compared to a standard API SL oil.

Benefit

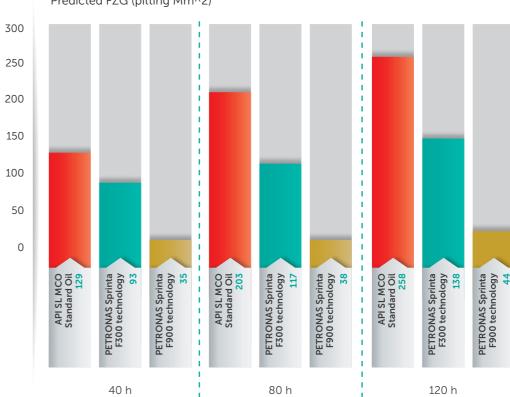
PETRONAS Sprinta with UltraFlex™ technology responds to pressure and stress in the gears, enabling rapid, smooth flowing gear changes.

Responds to pressure and stress in the gears, enabling rapid, smooth flowing gear changes.

PETRONAS Sprinta with UltraFlex™ technology is 83% better in pitting control tests, compared to a standard API SL oil.

Key Benefit - Stress and pressure resistance

Predicted FZG (pitting Mm^2)



Predicted test based on a third party statistical in-house method.

Our tests simulate pitting stress, which lasts up to 120 hours, or until the failure criteria has been met (a damage area of 4% on a single tooth, or 1% of the total active load-carrying flank surface of the pinion and wheel teeth).



Clutch grip and wear control

Challenge

Among the different mechanical parts of your motorcycle, your clutch is a unique system. In order to deliver the precise level of grip required, the oil you use must deliver optimal friction values.

A friction coefficient rate below 1.5 means there's not enough grip and the clutch could slip.

A rate above 2.5 means there will be too much grip, therefore the rider won't enjoy a smooth journey – there will be a jump between gear shifts, and a progressive wear of the clutch plates.

Solution

PETRONAS Sprinta has been designed to provide optimal friction values, giving you the precise level of grip – whatever the riding style or conditions.

PETRONAS Sprinta's formula delivers results right in the centre of the optimal performance zone, enabling smoother, more comfortable gear shifts.

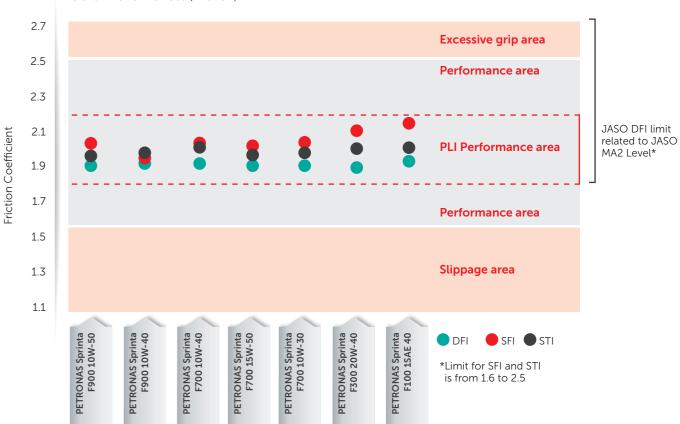
Benefit

PETRONAS Sprinta with UltraFlex™ technology delivers the perfect amount of grip in the clutch to avoid slipping, maintain power and prevent wear.

Delivers the perfect amount of grip needed to offer a smooth ride, **avoiding loss of power** and clutch wear. The PETRONAS Sprinta product range delivers a friction coefficient range between 1.8 and 2.1, which is well within the optimal performance range.

Key Benefit – Clutch Control

Clutch Performances (Friction)



Testing carried out by accredited independent testing laboratories.

Instant performance



Instant defence

Sludge and Varnish deposit control

Challenge

Heavy traffic and inner-city short runs can create a troublesome engine deposit known as sludge and varnish, which slows moving parts down, leading to excess friction.

This sludge generates heat and leads to deposits on critical engine parts.

Solution

The Sludge Control Sequence Test assesses how well an engine oil controls sludge and deposits, in accelerated operating conditions.

PETRONAS Sprinta is proven to defend your engine from sludge and harmful deposits – whether you're sat in traffic, or out pushing your bike to the limit.

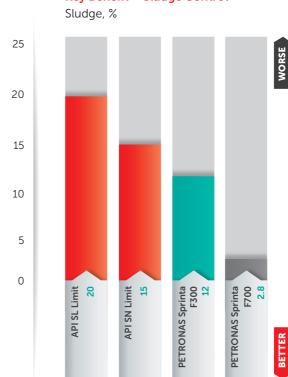
Benefit

PETRONAS Sprinta with UltraFlex™ technology defends the engine against intense heat and thermal pressures, preventing harmful deposits and power loss.

Defends your engine from sludge and deposits that can affect the bike's performance and durability.

PETRONAS Sprinta F700 series oils are over 80% better than the API SN industry limit.





Testing carried out by accredited independent testing laboratories on highest viscosity grades and worse conditions. Sequence VG.



Shear stability to prevent wear

Challenge

A motorcycle's gears are prone to serious gear issues such as wear, grinding and scuffing.

If the viscosity of an oil drops too low, it may no longer be able to avoid metal-to-metal contact – and thus expose the gears to possible damage.

Solution

The motorbike OEM industry relies heavily on JASO specifications to provide the proper level of gear performance – along with the necessary crankcase and clutch friction performance.

JASO's ASTM D6278 method subjects each oil to varying levels of shear stress in order to test their shear stability with the aim to limit serious gear issues.

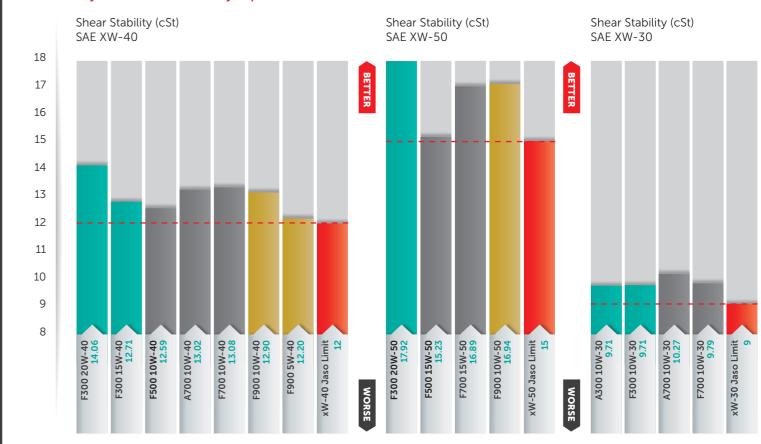
PETRONAS Sprinta has been designed to comply with – and exceed – the JASO Shear Stability Standard, to deliver the gear protection your motorbike deserves.

Benefit

PETRONAS Sprinta with UltraFlex™ technology resists gear scuffing and grinding by preventing metal-to-metal contact.

Maintains the right oil stability to protect your gears from possible damages such as wear, grinding and scuffing. PETRONAS Sprinta's high shear stability is proven to go above and beyond the recommended JASO limits.

Key Benefit - Shear stability to prevent wear





Superior oxidation resistance for better efficiency

Challenge

High temperatures in an engine can cause oil to thicken through oxidation – chemical deterioration caused by ongoing exposure to oxygen and heat.

The viscosity increase caused by oxidation can lead to loss of performance, loss of fuel efficiency and wear.

Solution

PETRONAS Sprinta offers increased lubrication stability and excellent oxidation resistance to enhance engine performance and maintain engine efficiency for the entire drain interval.

It also protects critical engine parts for longer, which means less downtime due to damage caused by high levels of oxidation.

Benefit

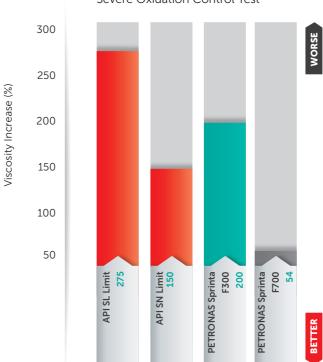
PETRONAS Sprinta with UltraFlex™ technology helps your motorbike run more efficiently, maintaining optimal fuel economy performance.

The oil's stable viscosity helps the bike run more efficiently, maintaining **optimal fuel economy performance**.

PETRONAS Sprinta has an 80% lower viscosity increase than the API SL limit.

Key Benefit - Superior Oxidation Resistance

Severe Oxidation Control Test



Testing carried out by accredited independent testing laboratories. Sequence IIIF.

In the Severe Oxidation Control Test, the bulk oil temperature is brought up to 155°C during a test lasting more than 80 hours to promote oxidation.



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Wear Control for longer engine life

Challenge

Heavy traffic and modern driving conditions take their toll on a motorcycle's engine.

Continuous start and arrest puts extra load throughout the engine, especially in the valve train and through the crankshaft that creates wear.

Solution

It's critical that your lubricant leaves a strong oil film protecting the engine parts while the engine is switched off and the normal oil flow stops. PETRONAS Sprinta has been developed, especially, to deliver high levels of wear protection – and to ultimately help increase the life of your engine.

This protection was proven by the Sequence IVA test – a severe industry wear test where the levels measured were thinner than a human hair.

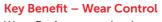
The F300 series was proven to exceed both SL and SN limits of performance
– even though it only has to pass the SL limit which means you can be assured of high quality, even at a lower price point.

Benefit

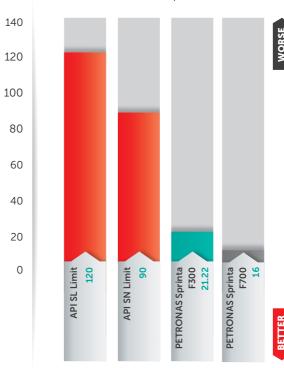
PETRONAS Sprinta with UltraFlexTM technology increases the engine life by minimising wear and delivering protection to the vital parts of the bike.

Increases the engine life by minimising wear and delivering protection to the vital part of the bike.

PETRONAS Sprinta F700 series oils provide **over 82% better wear control than the API SN industry limit.**







Testing carried out by accredited independent testing laboratories. Sequence IVA.



Key product benefitsLow sulphur formula for better catalyst durability

Challenge

Catalyst sulphur inhibition is caused by chemical absorption of sulphur compounds on a catalyst surface.

The presence of sulphur has an immediate effect on the catalyst performances.

Solution

Despite being designed to meet the requirements of high-performance engines, the PETRONAS Sprinta product range is formulated with environmentallyfriendly lubricant technology.

The sulphur in each of our oils is 50% lower than the latest API limits, which contributes towards keeping the catalyst clean, enhancing its durability and helping to protect the environment.

PETRONAS really cares about delivering environmentally friendly products. We are committed to sustainable mobility, continuously pushing our limits, and investing in innovative R&T projects to improve air quality for riders all over the world.

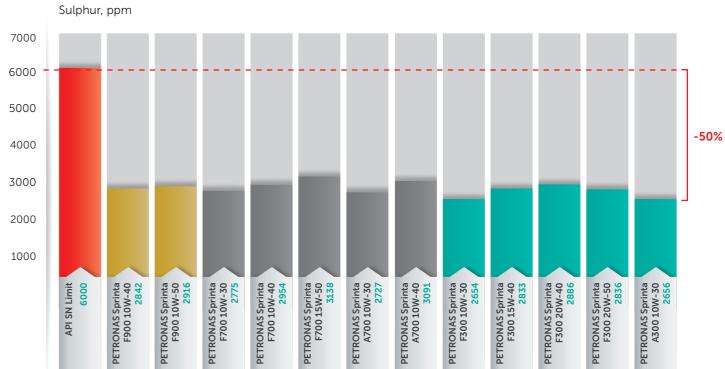
Benefit

PETRONAS Sprinta with UltraFlex™ technology meets the latest environmental compliance standards and enhances catalyst durability.

Contains half the sulphur limit than the latest standards to help **keep the** catalyst clean, enhance its durability, and protect the environment.

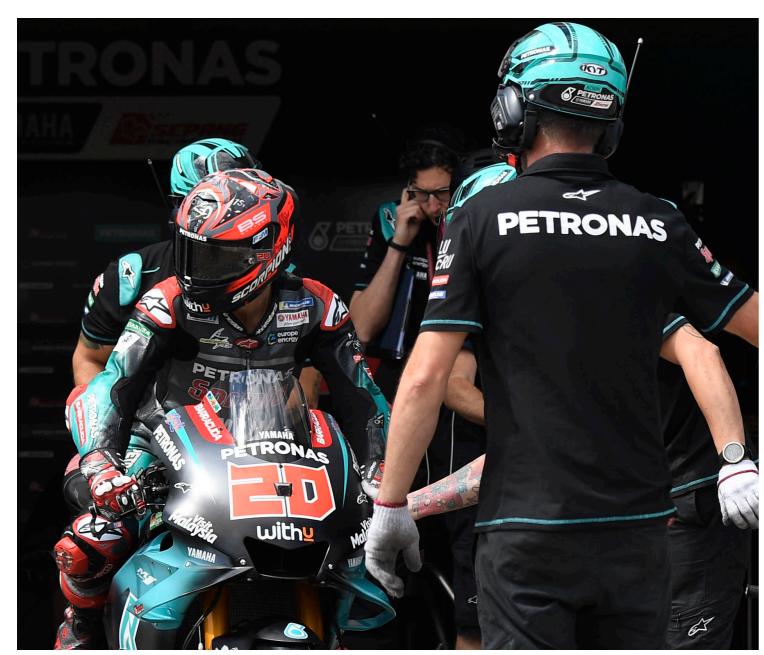
PETRONAS Sprinta products are 50% lower in Sulphur than the industry limit.

Key Benefit - Catalytic Converter Compatibly



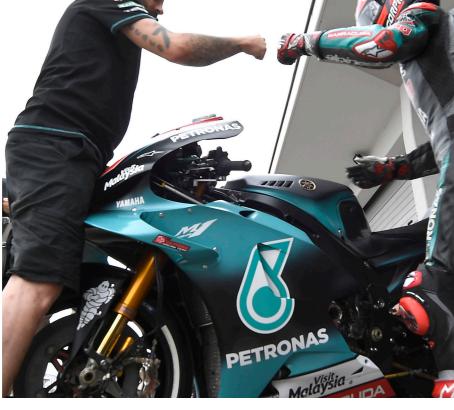
Testing carried out according to ASTM D4951.











From track to road

Just as every biker needs to be ready to respond, quick to adapt and flexible enough to cope with the demands of top level racing, so must their engine oil.

The oil in a MotoGP engine must be primed to deliver an instant response to the competing needs of the engine, clutch and gears – brilliantly multi-tasking at all times, resisting intense heat and wear and delivering an ultra-responsive performance.

At PETRONAS, we understand these challenges better than anyone, which is why we've spent countless hours developing PETRONAS Sprinta to react instantly – so team riders can respond dynamically from the start of the race.

PETRONAS Sprinta gets to work immediately, resisting stress and heat – and it has the ability to flex and react to multiple demands. The resulting ultra-responsive performance within the bike helps the team riders achieve quick wins, and get ahead faster.

It's a contributing factor to why PETRONAS Yamaha SRT has already achieved 3 poles and 2 podiums in its first 6 races.

"When I ride, I'm 100% focused. **Every part of me comes alive.** Every brain cell, every muscle."

Fabio Quartararo

PETRONAS Yamaha Sepang Racing Team rider.



PETRONAS Sprinta with UltraFlex™ technology delivers an instant response and exceptional performance.



