



# Cool is getting more from less.



Don't waste a single  
drop of energy.

## PETRONAS Syntium

Control the heat



Oil Developed For



AMG  
PETRONAS  
FORMULA ONE TEAM



Maximise efficiency. Visit [insert local url].



# Control the heat.

## The heat is on to use energy more efficiently.

### **Modern engines are operating at higher temperatures than ever**

With downsized, more compact engines running at incredible heats, and congested stop/start traffic increasing operating temperatures further, the conditions couldn't be more challenging and hostile for an oil.

Excessive heat is the enemy, causing deposit formation, oxidation and thermal breakdown – all of which reduce the efficiency of the engine.

### **Wasting energy generates even more heat**

Most internal combustion engines (ICE) only convert around 35% of fuel into power. The remaining energy is not converted into useful work, but instead wasted, dissipated mainly as heat. This doesn't just damage a car's engine – wasting energy in this way is unsustainable for our planet.





# Don't waste a single drop of energy

## Energy is too precious to waste

**Whether it's our own or the planet's, energy is a precious resource. In order to make the most of it and reach maximum efficiency, you need to control the heat, stay cool and focus your energy wisely.**

It's exactly the same under the hood of a car – the engine needs to stay cool in the face of aggressive heat and maintain optimal temperature to avoid wasting energy and perform at its best.

**Controlling the heat is the key to more efficient, sustainable motoring.**

PETRONAS Syntium helps your car make the most of every drop of available energy, maximising its efficiency by controlling engine-damaging heat.

- **CoolTech™ technology** controls the heat, reducing wear and deposits, extending parts life and delivering efficient performance for longer.
- **CoolTech+™ technology**, with its enhanced ability to control heat generated by friction, maximises a car's efficiency to reduce emissions and fuel consumption by up to 3%\*.





# Maximise efficiency

## Greater efficiency

By more efficiently lubricating moving parts to reduce friction and therefore heat, PETRONAS Syntium with CoolTech+™ technology **cuts emissions and fuel consumption by up to 3%\***, for cleaner, more cost-effective and efficient motoring.

Up to 3% more fuel economy and lower emissions\*



## Increased sustainability

Constantly switching between ICE and an electrical power unit places greater demands on the engine of a hybrid car – and its oil. By reducing heat generated by frequent stop/start friction, PETRONAS Syntium with CoolTech+™ technology provides up to **38% better bearing wear protection††**, to deliver optimal performance, better fuel economy and less emissions.

38% better bearing wear protection††



## Maintain performance

Thanks to its strong oil chains, PETRONAS Syntium with CoolTech™ technology more effectively removes heat generated by friction and combustion to offer **outstanding oxidation resistance – 68% better than industry benchmark†**. This maintains performance right up to the scheduled oil change, protecting the efficiency and performance of your engine.

Up to 68% better oxidation resistance†



## Enhanced protection

Its superior ability to withstand engine-damaging heat and stay cool means PETRONAS Syntium with CoolTech™ technology delivers **up to 37.8% better protection of critical parts against harmful deposits and wear\*\***, and outstanding cleanliness, for longer engine life and lower maintenance costs.

37.8% better at protecting critical parts against wear\*\*



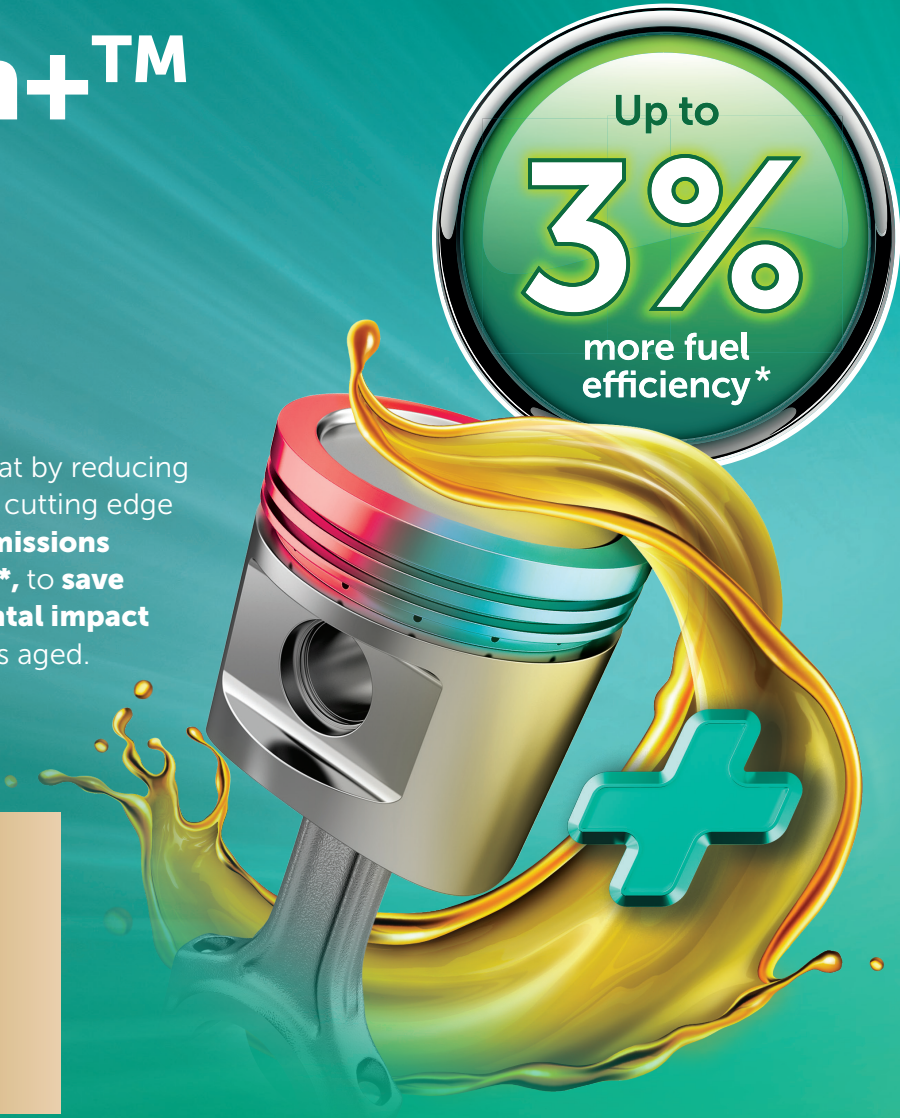


# CoolTech+™

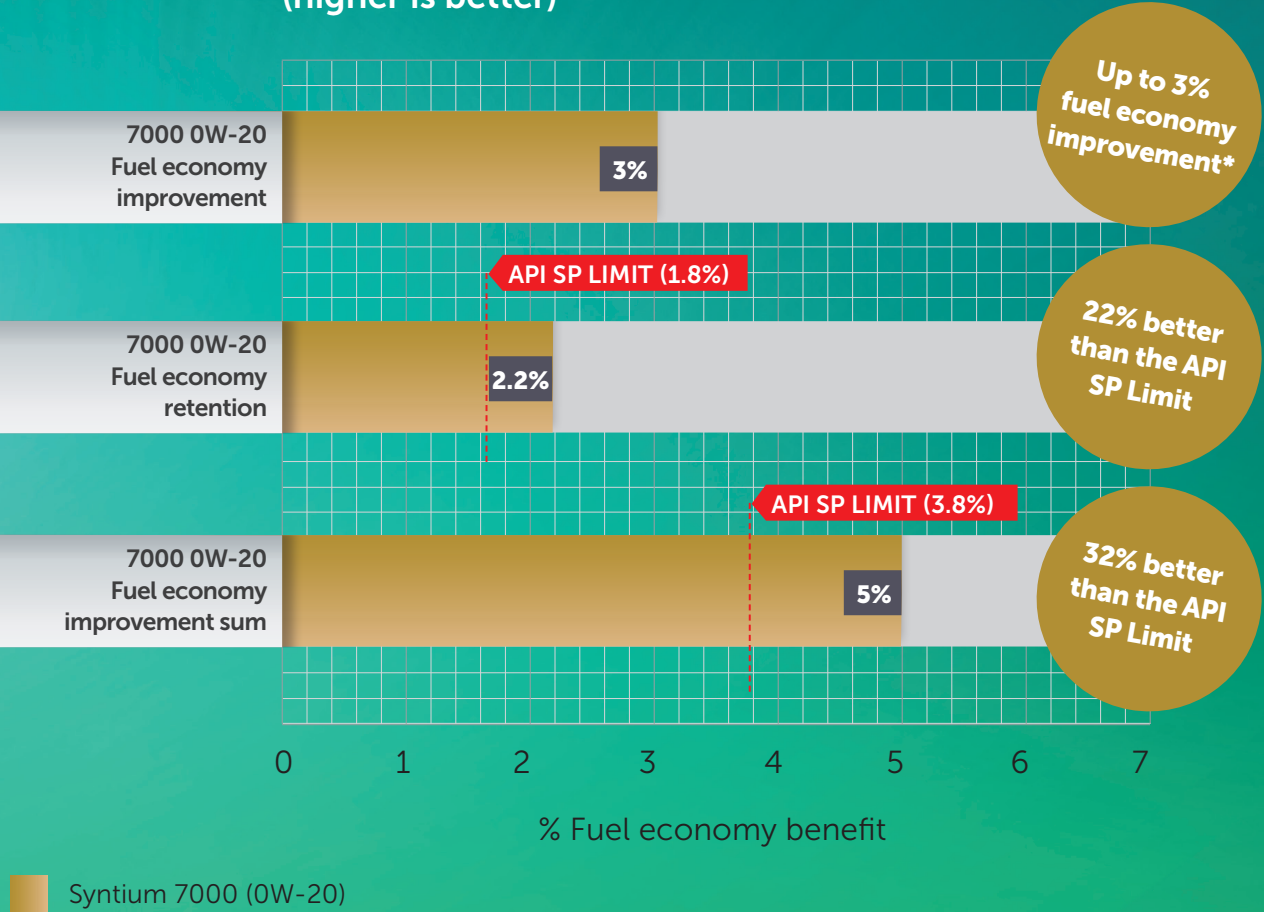
## Greater efficiency

With its superior ability to control heat by reducing friction, CoolTech+™ represents the cutting edge of our fluid technology, **reducing emissions and fuel consumption by up to 3%\***, to **save money** and **reduce the environmental impact** of your driving – even when the oil is aged.

Improving fuel efficiency reduces overall heat generated from combustion, keeping the engine at the optimum operating temperature - and reducing the CO<sub>2</sub> emissions at the same time.



Fuel Economy Improvement Test (higher is better)\*



\*Based on industry standard test SEQUENCE: VIE, against the API SP limit.

## Enhanced protection and performance

CoolTech™ technology controls the heat, reducing wear and deposits, extending parts life and delivering efficient performances for longer.

\*\*Based on industry standard test SEQUENCE: IVB, measured against the API SP limit.  
†Based on industry standard test SEQUENCE: IIH, measured against the API SP limit.  
‡Based on industry standard test SEQUENCE: VIII, against the API SP limit.

### Enhanced protection

PETRONAS Syntium **targets heat critical zones** deep within the engine, offering instant protection as soon as the engine is started and **preventing deposit build up, to extend parts life and lower maintenance costs.**

37.8% better at protecting critical parts against wear\*\*

### Maintain performance

Thanks to its exceptionally strong oil chains, PETRONAS Syntium offers outstanding oxidation resistance, to **control sludge, delay oil thickening and maintain a stable, protective film.** The result? **Maximum engine performance** right up to the next scheduled service.

Up to 68% better oxidation resistance†



# From the team behind the world's most efficient racing engine.

**PETRONAS is the official technology partner to the 7-times FIA Formula One World Championship-winning MERCEDES-AMG PETRONAS Formula One Team, engineering high performance, bespoke engine oil, race fuel and other lubricants, greases and fluids.**

A critical part of the team's success lies in the car's unrivalled ability to convert fuel into useful work. Most engines only convert around 35% of the potential fuel energy into power. PETRONAS technology enables the Mercedes-AMG PETRONAS Formula One car to achieve more than 50% thermal efficiency – making it the most efficient racing engine ever created.

Our technicians are world leaders when it comes to maximising the potential of every drop of energy – and they pour all their experience working with the world's fastest, most efficient hybrid car, into developing advanced fluids for drivers all over the world.

PETRONAS Syntium's ability to target and cool critical engine parts controls damaging heat, reduces wear and maintains optimal performance, allowing the car to convert the maximum amount of fuel energy into power, for more efficient, cleaner motoring.

**PETRONAS**  
*Syntium*



**AMG**  
**PETRONAS**  
FORMULA ONE TEAM

Oil Developed For

PETRONAS technology enables the Mercedes-AMG PETRONAS Formula One car to achieve

**more than 50% thermal efficiency**

making it the most efficient racing engine ever created.





Cool is  
making  
the most  
of precious  
energy.



PETRONAS  
*Syntium*

with °CoolTech+™ technology