

ENGINE OILS

HiTEC[®] 12208 **HDEO Additive Package**



Cost-Optimized Reduced SAPS Technology to Meet New Emissions Standards



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Key Performance Benefits

Commercial vehicles requiring API CK-4 were first introduced in the Model Year 2017 in US to meet ever more stringent emission regulations. Other countries in the world progressively introduced their latest emission regulations that require similar performance e.g.:

- China introduced China On-road Stage VI Emission Standard in 2021 and Offroad Stage IV Emission Standard in 2022
- India introduced Bharat Stage VI in 2020

HiTEC® 12208 can be formulated into premium lubricant meeting API CK-4 performance to enable OEM to meet the latest emission standards.

These lubricants provide:

- Superior wear control to protect engines
- Excellent oxidation performance to enable extended oil drain interval and lower operating cost
- Excellent piston cleanliness

These lubricants can be used in:

- Heavy duty and light duty commercial vehicles with engines meeting China On-road Stage VI and Bharat Stage VI standards
- Offroad equipment covering construction, mining machines and agriculture tractors with engines meeting China Offroad Stage IV standards

HiTEC® 12208 can also be formulated into API FA-4 lubricant with a high temperature high shear (HTHS) range of 2.9 - 3.2 cP to assist in reducing greenhouse gas (GHG) emissions for on-road commercial vehicles.

HiTEC® 12208 has been enhanced for JASO DH-2 claim which is important for Japanese Heavy Duty Vehicles.

Recommended Dosage

At the recommended treat rate of 13.7% wt, HiTEC® 12208 can be used to formulate cost-effective API CK-4, FA-4 and JASO DH-2 lubricants for advanced engine performance. It can also meet Cummins approvals. Please contact your Afton Chemical representative for specific recommendations.

Typical Characteristics

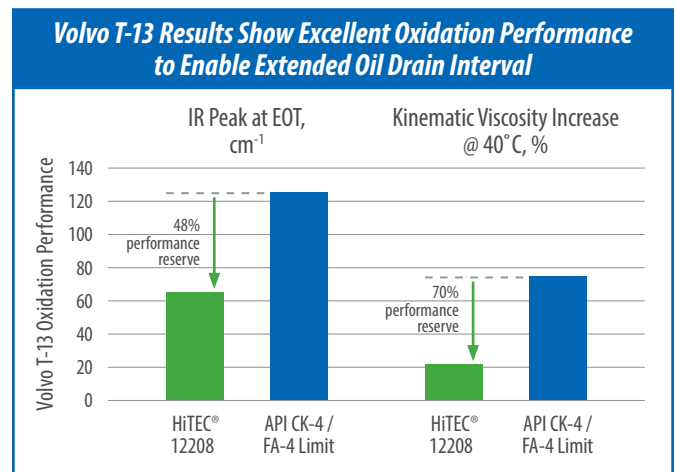
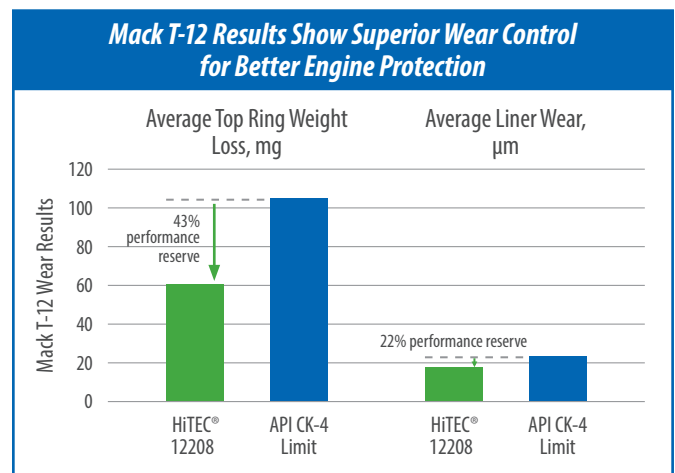
Appearance	Dark brown viscous liquid
Density at 15°C, g/ml	0.9572
Flash Point, °C (PMCC)	135 min
Kinematic Viscosity at 100°C, cSt	110
Total Base Number, mg KOH/g	62

Handling Information

Recommended Handling and Storage Temperature: 40-45°C

Maximum Handling Temperature (<24 hours): 70°C

Shelf Life: 12 months at ambient temperature



HiTEC® 12208 @ 13.7% wt		Approvals					
SAE	GP	API CK-4	API FA-4	Cummins 20086	Cummins 20087	Caterpillar ECF-3	JASO DH-2
SAE 10W-30	GP II		•		•		
SAE 10W-30	GP II	•		•		•	•
SAE 10W-40	GP II/III	•		•		•	•
SAE 15W-40	GP II	•		•		•	•