

CITGO CITGARD® 700 SYNTHETIC BLEND
ENGINE OILS



Date 12/16

DESCRIPTION: CITGO CITGARD 700 Synthetic Blend Engine Oils deliver the performance needed for newer engine designs while improving performance in older engines. Engineered with a proprietary additive technology that protects engines running at higher operating temperatures and fuel injection pressures, while meeting tighter wear limits and lower emission requirements. SAE 10W-30 viscosity grade assists in attaining the new Phase II fuel efficiency standards by improving fuel economy, increasing cold start up lubrication, and providing superior engine durability.

- PERFORMANCE BENEFITS:**
- SAE 10W-30 offers up to 3% fuel economy advantage over conventional SAE 15W-40 viscosity grade oils
 - Maintains viscosity over extended service drain intervals
 - Up to 100% increase in oxidation protection compared to conventional CJ-4 engine oils Always follow OEM recommendations when extending oil drain intervals
 - Advanced wear protection in older and newer engines
 - Reduced air entrainment in high pressure hydraulic fuel injection systems

RECOMMENDED FOR:

Equipment requiring: API CK-4, CJ-4, CI-4 PLUS, CI-4, CH-4/SN (SN applies to 15W-40 only) Caterpillar ECF-3 Cummins CES 20086	Detroit Diesel DFS 93K 222 Mercedes 228.31 Paccar Volvo/Mack/Renault - VDS-4.5/EOS-4.5/RLD-4 Ford WSS-M2C171-F1
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Note: Use of diesel engine oils in automotive gasoline engines can shorten the life of catalytic converters.

APPLICATIONS: CITGO CITGARD 700 Synthetic Blend Engine Oils provide superior performance for commercial trucks, agricultural equipment, construction equipment, stationary engines, and other diesel-fueled engine applications. Consult owner’s manual for proper lubricant selection.

API Comparison Chart

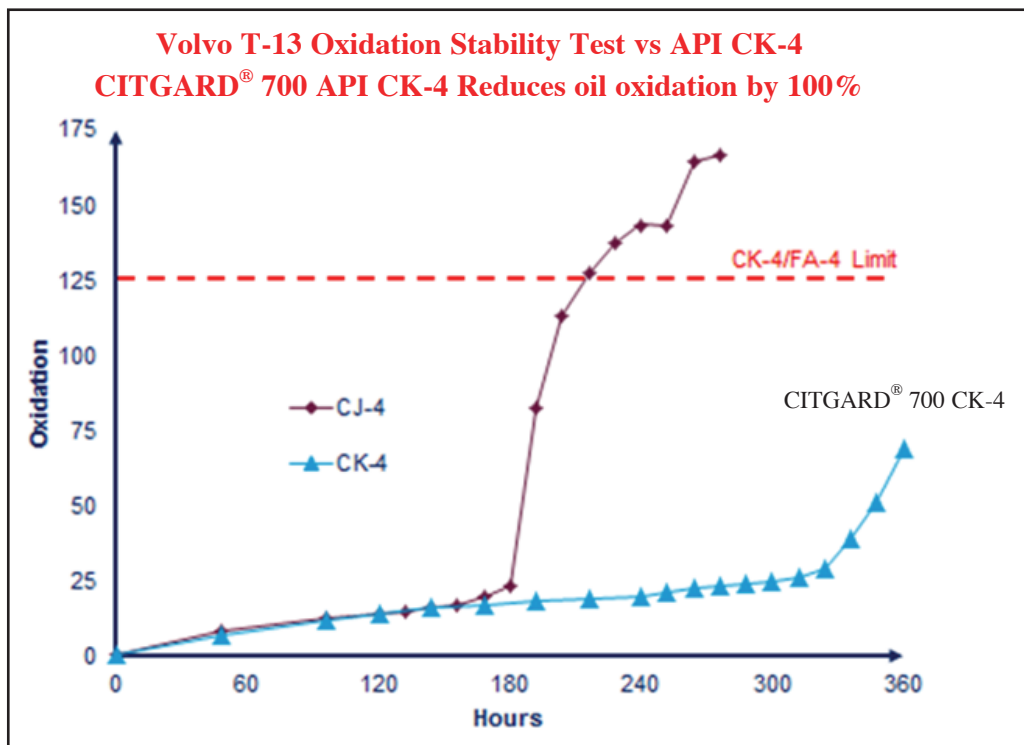
Category	CITGARD® 700 API CJ-4	CITGARD® 700 API CK-4
Back serviceable	YES	YES
Viscosity grades	15W-40/10W-30	15W-40/10W-30
Fleet million mile engine test rating	Better	Best
100% improved oxidation stability	NO	YES
Greater shear stability vs. conventional API CJ-4	YES	YES
Aeration control vs. conventional API CJ-4	Better	Best
SAE 10W-30 sustains improved fuel economy through 50,000 miles	Better	Best
Compatible with conventional API CJ-4 oils	YES	YES
Best Overall Performance and Backward compatibility	Better	Best

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TYPICAL PROPERTIES:

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SAE Grade	10W-30	15W-40
Material Code	622721001	622723001
Gravity, ASTM D4052, °API at 60°F	31.6	30.5
Pounds/Gallon at 60°F	7.25	7.30
Specific Gravity at 60°F	0.87	0.88
Viscosity at 40°C, cSt	80.9	111.9
Viscosity at 100°C, cSt	11.9	15.2
Viscosity Index	142	141
CCS Viscosity, cP, @ Temperature	6,159 @ -25°C	4677 @ -20°C
MRV Viscosity, cP, @ Temperature	23,250 @ -30°C	19,968 @ -25°C
MRV Yield Stress, Pa, @ Temperature	<35	<35
Pour Point, °F (°C)	-38 (-39)	-33 (-36)
Flash Point, COC, °F (°C)	435 (224)	439 (226)
Noack Evaporative, ASTM D5800, % Loss	12.0	11.0
Color, ASTM D1500	L3.0	L3.5
Total Base Number, ASTM D2896	10	10
Sulfated Ash, ASTM D874, % wt	1.0	1.0

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