

CITGO CITGARD® 600 ENGINE OILS  
MONOGRADES

Date 09/15

- DESCRIPTION:** CITGO CITGARD 600 Engine Oils Monogrades are high quality, heavy-duty crankcase oils. This product line is manufactured with the latest additive technologies to provide excellent performance. SAE 30, 40, and 50 viscosity grades are designed with low sulfated ash to give optimal performance in Detroit Diesel Two Stroke Cycle diesel engines calling for obsolete service category CF-2. These mono-grade products also meet the performance requirements of obsolete service category CF. SAE 10W and SAE 30 viscosity grades have also passed the requirements of the Allison C-4 specification. These lower viscosity grade fluids are excellent for hydraulic applications calling for Allison C-4 and / or Caterpillar TO-2 performance with engine oil type technology additive systems.
- PERFORMANCE BENEFITS:**
- Excellent detergency control of exhaust port deposits in Detroit Diesel Two-stroke cycle diesel engines.
  - Excellent dispersancy and oxidation resistance protect against excessive viscosity increase.
  - Superior wear protection in hydraulic pumps and Detroit Diesel Two-stroke cycle diesel engines.
  - Good TBN properties protect against corrosive wear.
  - Proven oil consumption control in heavy duty service.
  - Shear stability of mono-grades assures stay-in-grade performance.
  - Meets Detroit Diesel recommendations of 1.0% maximum sulfated ash for Two-stroke cycle diesel engines.
- PERFORMANCE CAPABILITIES\*:**
- |  |                  |
|--|------------------|
| Caterpillar TO-2                               | Allison C-4      |
| Detroit Diesel Two-stroke Cycle diesel engines | US CID A-A-52306 |
- \*Some performance capabilities are applicable to specific viscosity grade(s).*
- APPLICATIONS:** CITGO CITGARD 600 Engine Oils Monogrades are intended for use in heavy-duty service in commercial trucks, agricultural equipment, construction equipment, and other diesel fueled engine, hydraulic, and transmission applications. Specific viscosity grades are approved for use in power-shift, manual, and hydrostatic transmissions, final drives, and hydraulic systems where the equipment manufacturer designates the use of a heavy-duty, detergent-type engine oil. See CITGARD 600 Multi-Grade Product Information Sheet for more options. Check Owners' Manuals for specific viscosity grade and API Service Category recommendations.

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Date 09/15 - (Continued)

## TYPICAL PROPERTIES:

## CITGO CITGARD® 600 ENGINE OILS—MONOGRADES

SAE Grade	10W	30	40	50
Material Code	622610001	622630001	622640001	622650001
Gravity, ASTM D 4052, °API	31.8	28.4	27.3	26.5
Pounds Per Gallon	7.22	7.37	7.42	7.46
Flash Point, ASTM D 92 (COC), °F (°C)	439 (226)	489 (254)	486 (252)	482 (250)
Viscosity, ASTM D 445, cSt at 100°C	6.9	12.0	14.9	19.0
cSt at 40°C	41	102	145	212
Viscosity Index, ASTM D 2270	129	106	103	100
HTHS Rate Vis at 150°C & 10 <sup>6</sup> sec <sup>-1</sup> , cP	2.3	3.6	4.3	5.1
CCS Vis, ASTM D 5293, cP at °C	4,000 at -25	NR*	NR*	NR*
MRV Vis, ASTM D 4684, cP at °C	10,000 at -30	NR*	NR*	NR*
MRV Yield Stress, ASTM D 4684, Pa at °C	<35 at -30	NR*	NR*	NR*
Pour Point, ASTM D 97, °F (°C)	-38 (-39)	-11 (-24)	+10 (-12)	+10 (-12)
Sulfated Ash, ASTM D 874, %m	0.9	0.9	0.9	0.9
TBN (Total Base No.), ASTM D 2896	8	8	8	8
Color, ASTM D 1500 (may vary by location)	L3.0	L3.0	L4.0	L4.0

## KEY PERFORMANCE CLAIMS AND APPLICATIONS:

## Obsolete Service Categories

CF-2

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CF

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## Approvals or performances that are

## Viscosity Grade specific:

Allison C-4

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US CID A-A-52306

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\*NR = No Requirement

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