

CITGO CITGARD® TRANSIT LOW ASH
ENGINE OIL



Date 01/08

DESCRIPTION: CITGARD Transit Low Ash Engine Oil is a high quality, heavy-duty crankcase oil. CITGARD Transit Low Ash Engine Oil has been field tested in both 4-cycle and 2-cycle engine applications. Proven experience makes this product particularly attractive to transit applications using both two and four cycle diesel engines. The SAE 40 viscosity grade is also the appropriate lubricant for the large 2-cycle Detroit Diesel 149 series engines. CITGARD Transit Low Ash Engine Oil is a proven performer in fleets that have both diesel and gasoline fueled engines. Designed to effectively combat sludge and varnish formation in the new high-output, low-emission engine designs, CITGARD Transit Low Ash Engine Oil is formulated to meet heavy-duty bus, truck, agricultural and construction equipment requirements.

- BENEFITS:**
- Excellent detergent control of piston ring deposits in highly stressed engines.
 - Excellent fuel soot dispersancy and oxidation resistance to protect against excessive oil viscosity increase.
 - Superior wear protection and friction reduction.
 - Excellent high-temperature/high-shear rate viscosity without sacrificing low-temperature viscosity.
 - Excellent TBN retention to prevent corrosion wear.
 - Proven oil consumption control in heavy-duty service.
 - Meets manufacturers' warranty requirements.
 - Excellent shear stability to assure stay-in-grade performance.

CAPABILITIES:

Caterpillar	Allison C-4
Cummins Heavy-Duty B & C engines	Mack EO-M, EO-M Plus
Cummins CES 20071 & 20076	Navistar International
Detroit Diesel 2- and 4-cycle	Volvo
Ford M2C153-E; M2C171-B	U.S. CID A-A-52306 and 52039A

APPLICATIONS: CITGARD Transit Low Ash Engine Oil is designed for use in heavy-duty service, including commercial, buses, trucks, agricultural equipment, construction equipment, stationary engines and other diesel engine applications. This product also provides outstanding service in heavy-duty gasoline engine applications. The multi-viscosity grade provides fuel economy benefits over single viscosity grades, and permits year-round use in most areas by improving cold starting along with full lubricating protection at high operating temperatures - important in heavily loaded, high-output engines. CITGARD Transit Low Ash Engine Oil is offered in SAE 15W-40, SAE 40, and SAE 30 viscosity grades.

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Date 01/08- (Continued)

TYPICAL PROPERTIES:

CITGO CITGARD® TRANSIT LOW ASH ENGINE OIL

SAE Grade	15W-40	40	30
Material Code	622335001	622334001	622333001
Gravity, ASTM D 4052, °API	28.9	27.3	27.8
Pounds Per Gallon	7.35	7.42	7.39
Flash Point, COC, °F (°C)	439 (226)	482 (250)	486 (252)
HTHS rate Vis at 150°C, cP	4.2	4.4	3.7
Viscosity, ASTM D 445, cSt at 100° C	15.0	15.4	11.9
cSt at 40° C	112	150	102
Viscosity Index, ASTM D 2270	139	104	105
Viscosity, ASTM D 5293 (CCS), cP at -20° C	5850	—	—
Viscosity, ASTM D 4684 (MRV), cP at -25° C	19,700	—	—
Yield Stress, ASTM D 4684 (MRV), Pa at -25° C	<35	—	—
Pour Point, ASTM D 97, °F (°C)	-27 (-33)	+5 (-15)	-6 (-21)
Color, ASTM D 1500	2.5	3.5	3.0
Sulfated Ash, ASTM D 874, m%	0.9	0.9	0.9
Total Base No. (TBN), ASTM D 2896	8	8	8
NOACK Volatility, D 5800, % loss	13	<10	<10
Evaporative Loss at 371° C, D 6417, % loss	6	<6	<6

KEY PERFORMANCE CLAIMS AND APPLICATIONS:

Detroit Diesel Universal Transit Application
Engine Oil, including DDC Series 50,
Series 60, & 6V92's

	✓	—	—
All Detroit Diesel 2-cycle engines, including 149 Series	—	✓	All except 149 Series
All 4 cycle diesel engines, including Cummins, DDC, Caterpillar, Mack, & Navistar	✓	—	—
Caterpillar ECF-1	✓	—	—
API Service Categories			
CH-4	✓	—	—
CG-4	✓	—	—
CF-4	✓	—	—
CF-2	✓	✓	✓
CF	✓	✓	✓
SJ	✓	✓	✓