

## SYNTHETIC SAE 75W-90 GL-4

# Long Service Life, Wide Temperature Use Gear Oil

#### PRODUCT DESCRIPTION

PENNZOIL® SYNTHETIC SAE 75W-90 GL-4 combines a premium performance gear oil additive package with high quality synthetic base stocks. The result is a gear oil that provides excellent low temperature fluidity for safe lubrication during very low temperature transmission and transaxle startup, and also maintains a thick protective oil film during extremely hot operating conditions.

PENNZOIL® SYNTHETIC SAE 75W-90 GL-4 is formulated with all the performance additives necessary for outstanding protection of gears and bearings. It contains extreme pressure agents which protect against shock loading and wear. It is formulated to be compatible with copper containing alloys and soft metals found in synchronizers. Foam inhibitors protect against oil aeration and foam, which can rupture the lubricant film and cause wear due to lack of lubrication. Special rust inhibitors are incorporated into PENNZOIL® SYNTHETIC SAE 75W-90 GL-4 to protect against corrosion than can result from condensation. Oxidation inhibitors are included to further enhance this synthetic's inherent oxidation stability, resulting in a lubricant with exceptionally long service life and excellent resistance to deposit and sludge formation during high temperature operation.

PENNZOIL® SYNTHETIC SAE 75W-90 GL-4 meets all the requirements of API Service Classification GL-4.

#### APPLICATION

PENNZOIL® SYNTHETIC SAE 75W-90 GL-4 is designed primarily for the lubrication of manual transmissions and transaxles requiring an API GL-4 lubricant. It can be used in passenger cars, light trucks, sport utility vehicles, and vans. It continues to flow at very low temperatures, providing especially good protection of gears and bearings in extreme cold weather. It also provides excellent service in hot climates by not thinning at high temperatures, thereby maintaining a full film of protective lubricant on gear teeth. In hot running gear boxes, it allows longer service due to the excellent stability of the synthetic base stocks used in it. It can be used in applications that call for General Motors part number 12345371 gear oil.

Passenger car or truck manual transmissions experiencing difficult shifting during cold weather while using conventional mineral based GL-4 oils, will typically find easier shifting characteristics when using PENNZOIL® SYNTHETIC SAE 75W-90 GL-4.

#### **BENEFITS**

- Maintains fluidity at low temperatures
- Does not thin out at high temperatures
- Long service life
- Prevents rust
- Resists oxidation
- Withstands heavy shock loads
- High viscosity index
- Compatible with copper containing alloys

# TYPICAL PHYSICAL AND CHEMICAL PROPERTIES PENNZOIL® SYNTHETIC SAE 75W-90 GL-4

TEST	METHOD	TYPICAL RESULTS
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Gravity, °API	ASTM D-287	31.2
Gravity, Specific @ 60°F	ASTM D-1298	0.8698
Pounds per Gallon		7.25
Color	ASTM D-1500	1.0
Flash Point, °C(°F)	ASTM D-92	229(445)
Pour Point, °C(°F)	ASTM D-97	-42(-44)
Viscosity		
@ 40°C, cSt	ASTM D-445	108
@100°C, cSt	ASTM D-445	15.3
@ 100°F SUS	ASTM D-445 & 2161	554
@ 210°F SUS	ASTM D-445 & 2161	80.7
Viscosity Index	ASTM D-2270	149
Brookfield Viscosity cP @ -40°C	ASTM D-2983	110,000
Material Number		
33 Pound Pail		56075
12/1 Quart		56076



## SYNTHETIC SAE 75W-90 GL-5

# Long Service Life, Wide Temperature Use Gear Oil

## PRODUCT DESCRIPTION

PENNZOIL® SYNTHETIC SAE 75W-90 GL-5, formerly known as GEARPLUS® SUPER SAE 75W-90, combines a premium performance gear oil additive package with a high quality synthetic base stock. The result is a gear oil that provides excellent low temperature fluidity for safe lubrication during very low temperature axle and transmission startup, and also maintains a thick protective oil film during extremely hot operating conditions.

PENNZOIL® SYNTHETIC SAE 75W-90 GL-5 is formulated with all the performance additives necessary for outstanding protection of gears and bearings. It contains extreme pressure agents which protect against shock loading and wear. Foam inhibitors protect against oil aeration, which can rupture the lubricant film and cause wear due to lack of lubrication. Special rust inhibitors are incorporated into PENNZOIL® SYNTHETIC SAE 75W-90 GL-5 to protect against corrosion than can result from condensation. Oxidation inhibitors are included to further enhance this synthetic oil's inherent oxidation stability, resulting in a lubricant with exceptionally long service life and excellent resistance to deposit and sludge formation during high temperature operation.

PENNZOIL® SYNTHETIC SAE 75W-90 GL-5 meets all the requirements of API Service Classification GL-5.

#### APPLICATION

PENNZOIL® SYNTHETIC SAE 75W-90 GL-5 is designed primarily for the lubrication of differentials and manual transmissions requiring an API GL-5 gear lubricant. It can be used in passenger cars, light trucks, sport utility vehicles and vans. It continues to flow at very low temperatures, providing especially good protection of gears and bearings in extreme cold weather. It also provides excellent service in torrid climates by not thinning at high temperatures, thereby maintaining a full film of protective lubricant on gear teeth. In hot running gear boxes, it allows longer service due to the excellent stability of the synthetic base stocks used in it.

PENNZOIL® SYNTHETIC SAE 75W-90 GL-5 is suitable for use in both limited slip differentials and conventional axles. It may be used for makeup or complete refill of limited slip differentials, including rebuilt units.

Passenger car or truck manual transmissions experiencing difficult shifting during cold weather while using conventional mineral based GL-5 oils, will typically find easier shifting characteristics when using PENNZOIL® SYNTHETIC SAE 75W-90 GL-5.

#### **BENEFITS**

- Maintains fluidity at low temperatures
- Does not thin out at high temperatures
- Long service life
- Prevents rust
- Resists oxidation
- Withstands heavy shock loads
- High viscosity index
- NFS Approved (former USDA H-2 rating)

# TYPICAL PHYSICAL AND CHEMICAL PROPERTIES PENNZOIL® SYNTHETIC SAE 75W-90 GL-5

TEST	METHOD	TYPICAL RESULTS
Gravity, °API	ASTM D-287	33.0
Gravity, Specific @ 60°F	ASTM D-1298	0.860
Pounds per Gallon		7.3
Flash Point, °C(°F)	ASTM D-92	201(395)
Pour Point, °C(°F)	ASTM D-97	-51(-60)
Viscosity		
@ 40°C, cSt	ASTM D-445	110
@100°C, cSt	ASTM D-445	15.7
@ 100°F SUS	ASTM D-445 & 2161	562
@ 210°F SUS	ASTM D-445 & 2161	82.1
Viscosity Index	ASTM D-2270	151
Brookfield Viscosity cP @ -40°C	ASTM D-2983	82,000
Channel Point, °C(°F)		-45(-50)
Material Number		
390 Pound Drum		4467
110 Pound Drum		4468
33 Pound Pail		4469
12/1 Quart		56077



## SYNTHETIC SAE 75W-140 GL-5

## Synthetic Gear Oil For "Ultimate Vehicle Protection"

#### PRODUCT DESCRIPTION

PENNZOIL® SYNTHETIC SAE 75W-140 GL-5 Gear Lubricant combines a premium performance gear oil additive package with a high quality synthetic base stock. The result is a gear oil that provides excellent fluidity for safe lubrication of gears and axles during very low temperatures and also maintains a thick protective oil film during extremely hot operating conditions.

PENNZOIL® SYNTHETIC SAE 75W-140 GL-5 is formulated with all the performance additives necessary for outstanding protection of gears and bearings. It contains extreme pressure agents that protect against shock loading and wear. Foam inhibitors protect against oil aeration, which can rupture the lubricant film and cause wear due to lack of lubrication. Special rust inhibitors are incorporated into PENNZOIL® SYNTHETIC SAE 75W-140 GL-5 to protect against corrosion than can result from condensation. Oxidation inhibitors are included to further enhance this synthetic oil's inherent oxidation stability, resulting in a lubricant with exceptionally long service life and excellent resistance to deposit formation during high temperature operation.

PENNZOIL® SYNTHETIC SAE 75W-140 GL-5 meets all the requirements of API Service Classification GL-5.

#### APPLICATION

PENNZOIL® SYNTHETIC SAE 75W-140 GL-5 Gear Lubricant is designed primarily for the lubrication of differentials and manual transmissions requiring an API GL-5 gear lubricant. It can be used in limited slip and conventional differentials found in passenger cars, light trucks, sport utility vehicles and vans. It continues to flow at very low temperatures, providing especially good protection for gears and bearings in extreme cold weather. It also provides excellent service in torrid climates by not thinning at high temperatures, thereby maintaining a full film of protective lubricant on gear teeth. In hot running gear boxes, it allows longer service due to the excellent stability of the synthetic base stocks used in the product. PENNZOIL® SYNTHETIC SAE 75W-140 GL-5 is specially formulated for today's stringent demands of everyday stop and go driving and towing applications.

PENNZOIL® SYNTHETIC SAE 75W-140 GL-5 is suitable for use in both limited slip and conventional differentials. It may be used for makeup or complete refill of limited slip differentials, including rebuilt units.

Passenger car or truck manual transmissions experiencing difficult shifting during cold weather while using conventional mineral based GL-5 oils, will typically find easier shifting characteristics when using PENNZOIL® SYNTHETIC SAE 75W-140 GL-5.

## **BENEFITS**

- Contains special extreme pressure and anti-wear additives, minimizing wear that can occur with high or shock loads
- Provides protection over a wide temperature range
- Protects against corrosion
- Provides outstanding thermal stability
- Reduces or eliminates chatter in limited slip differentials

July, 2002 Stock # 5040855

# TYPICAL PHYSICAL AND CHEMICAL PROPERTIES PENNZOIL® SYNTHETIC SAE 75W-140 GL-5

TEST	METHOD	TYPICAL RESULTS
Gravity, °API	ASTM D-287	31.7
Gravity, Specific @ 60°F	ASTM D-1298	0.865
Pounds per Gallon		7.3
Flash Point, °C(°F)	ASTM D-92	188(370)
Pour Point, °C(°F)	ASTM D-97	-45 (-49)
Viscosity		
@ 40°C, cSt	ASTM D-445	175
@100°C, cSt	ASTM D-445	24.6
@ 100°F SUS	ASTM D-445 & 2161	896
@ 210°F SUS	ASTM D-445 & 2161	121
Viscosity Index	ASTM D-2270	173
Brookfield Viscosity cP @ -40°C	ASTM D-2983	126,000
Material Number		
Bulk		5036402
35 Pound Pail		5036403
12/1 Quart		5036424

July, 2002 Stock # 5040855