



Product information

XTG Gear Oil 80W90 GL5

Bardahl XTG Gear Oil 80W90 GL5 is a high-grade premium quality lubricant for mechanical transmissions. This oil has excellent anti-wear properties and gives very good protection against corrosion. It is made up of high-grade solvent refined base oils and special EP additives. The following properties are characteristic for this product:

- A high anti-corrosion and anti-foaming power.
- Excellent oxidation resistance.
- A very low solidification point.
- Very good extreme pressure (EP) properties.

The problem

Automotive, motorcycle and other vehicle gears are subjected to high and shock loading under conditions where water and dirt contamination of the gear lubricant are not unusual occurrences.

- Foaming of gear oils during high gear speed operation can result in wear or seizure of gears.
- High loads typical with hypoid gears or racing increase the incidence of boundary lubrication and result in higher oil oxidation.
- Increased Water Contamination of gear oils such as occur in off road and racing conditions can cause corrosion of gears and gear failure.

The solution

This oil is formulated to meet or exceed the most severe gear problems encountered by automobiles, motorcycles and other vehicles. Use of **Bardahl XTG Gear Oil 80W90 GL5** will:

- absorb heavy shock loads
- extend clutch plate life
- control oil foam
- extend gear oil life
- protect against wear and corrosion

This oil meets the requirements of the manufacturers of passenger cars, tradesman vans and trucks. It may be used all year round. Mixable with all other Mil-L-2105 types of transmission fluids.

Uses

Suitable for all transmissions (gearboxes, differentials and power steering) for which the manufacturer recommends a heavily doped GL-5 oil. Because of its high specification this oil is suitable for heavy load gear transmissions.

BARDAHL NL 6 OCD INTERNATIONAL

Maxwellstraat 41 - 2216GP Dordrecht - Postbus 9024 - 3301 AA Dordrecht

Tel (078) 6512322 - Fax (078) 6174848 - email: info@bardahl.nl - website: www.bardahl.nl

GB52100



Product information

Specifications

API services GL5
 MIL-L-2105 D
 ZF:TE ML 01/05
 FORD M2C-108-C/SQM-2C-9003 AA
 Mack GO-G
 Eaton
 Mercedes-Benz: 235
 Fuller
 IHC 135 H-EP
 Clark MS 8
 CS 3000 B
 MAN 342

Analytical-data

Bardahl Gear Oil GL5	80W90	85W140
Viscosity; cst at 100°C	15.0	27.0
Viscosity; cst at 40°C	150	390
Viscosity Index	100	95
Viscosity; m pa/s at	-26°C 140000	-12°C 140000
Straight Ash;wt.%	0.1	0.1
Sulphated Ash;wt.%	0.1	0.1
TAN; mg KOH/g ASTM D664	2.0	2.0
Pour point;°C	-27	-15
Flashpoint; COC;°C	206	210
Firepoint; COC;°C	234	240
Colour; ASTM D1500	4.5	5.0
Specific Gravity at 15/15°C	0.900	0.905

Gear Oil 80W90 GL5 85W140 GL5 80W90 GL4

Article number 52151 52351
Contents 1 litre 1 litre

Article number 52155 52355 52455
Contents 5 litre 5 litre 5 litre



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Article number	52182	52382	52482
Contents	25 litre	25 litre	25 litre
Article number	52186	52386	52486
Contents	60 litre	60 litre	60 litre
Article number	52192	52392	52492
Contents	208 litre	208 litre	208 litre

LAB REPORT

Oil Foaming

XTG has a laboratory and race-proven anti-foam system, which virtually eliminates foam problems. Test by outside laboratories, using ASTM Foam Test procedure D-892, demonstrated XTG's performance. In these tests an XTG 80W 90 formula exceeded the tough MIL-L-2105C requirements.

Foam Test, ASTM D-892	XTG Formula Results	MIL-L-2105C Requirements
Sequence I	0 ml.	20 ml.
Sequence II	0 ml.	50 ml.
Sequence III	0 ml.	20 ml.

High Loads

XTG has been tested under laboratory and field conditions. In CRC L-37 High Torque tests, gears lubricated with an XTG formula showed no signs of rippling, ridging or spalling. XTG also showed excellent performance in standard bench test:

Shell 4-Ball Wear Test (ASTM D-226-67) 1200 RPM, 40kg. load, 75C)

Avg. Friction Coefficient	0.082
Avg. Scar Diameter, m.m.	0.87

Falex E.P. Test

Fail load, lbs.	2750
Wear Teeth	41
Type Failure	Torque

Water Contamination

High Loads in combination with water can cause corrosion of metal parts and can cause sludge formation. XTG has been specifically formulated to minimize these



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problems. In the CRC L-33 7-Day Moisture Corrosion test, an XTG formula passed MIL- L-2105C specifications, having virtually no rust on the cover plate or gears.

In a 72-hour beaker oxidation test, 100 millimeters of a XTG blend was held at 135C, with a steel coupon immersed in the XTG. After the test period, the steel coupon showed no evidence of sludge formation. Competitive GL-5 gear oil formulations run under the same conditions showed large quantities of sludge formation.

XTG has also passed other widely recognized corrosion tests including:

ASTM D -130, Copper Strip Corrosion 1a

Volkswagen Corrosion Test

Oil Appearance	clear
Steel Appearance	slight discoloration
Copper Appearance	Pass
Weight Change, Cu, mg	0

Ford Water Tolerance Test, BJ 10-3

Rating 10 = clean

Cup	10 (Pass)
Strip	10 (Pass)