# TEXOL Chemical

# **Technical Data Sheet**

Texol Gearsyn™ PG Series

Synthetic gear oils

## **Product Description**

Texol Gearsyn<sup>™</sup> PG gear oils were developed for application in highly loaded gear and bearings even when subjected to high operating conditions.

- They feature an excellent oxidation stability (even at high temperatures)
- Outstanding viscosity-temperature stability and extremely high viscosity index without using VI improvers
- They are manufactured from high quality polyglycol base oils
- Texol Gearsyn<sup>™</sup> PG synthetic gear oils are available in the viscosity grades 68 to 3000.

### **Applications and Uses**

The excellent properties of Texol Gearsyn<sup>™</sup> PG synthetic gear oils are especially evident in the lubrication of mechanically and thermally highly loaded friction surfaces.

They are especially suited for service in highly loaded enclosed gear drives (spur, helical, bevel and worm gears), the lubrication of rolling and sliding bearings in paper machines, calanders, kneaders, extruders and mills.

Sustained oil reservoir temperatures up to +  $150^{\circ}$ C, with short time exposure to peak temperatures up to +200°C.

#### Advantages

- Considerable decrease in maintenance costs due to a prolonged service life of lubricant and machine parts
- The good viscosity temperature behavior ensures the formation of a load resistant lubricating film on the friction surfaces over a wide temperature range thus offering an optimum wear protection.
- Critical mixed friction areas are easily coped with due to the efficiency of EP additives. These operating conditions prevail under extremely high loads.
- Excellent corrosion protection and good foaming behavior.
- Compatibility with non-ferrous metals is quaranteed by appropriate additives.
- in worm gears the coefficents of friction are reduced due to the polyglycol base oil and the wear rates are lowered owing to the optimum additive package.
- Texol Gearsyn<sup>™</sup> PG is classified according to API GL5 with regards to seizure

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#### Texol Gearsyn<sup>™</sup> PG Series Synthetic gear oils

# **Typical Properties**

Property (Unit)	PG 68	PG 100	PG 150	PG 220	PG 320	PG 460	Method
Density at +15 °C	1048	1050	1056	1070	1074	1075	DIN 51757
Viscosity @40°C, cSt	68	100	150	220	320	460	DIN 51550
Viscosity @100°C, cSt	15	21	27	35	51	73	DIN 51550
ISO Viscosity Grade	68	100	150	220	320	460	DIN 51519
Viscosity Index	200	206	211	216	231	241	DIN ISO 2909
Flash Point, °C	270	280	280	290	290	290	DIN ISO 2592
Pour Point, °C	-45	-42	-36	-33	-30	-30	DIN ISO 3016
Four ball weld load, N	1600	1600	1600	1700	1800	1800	DIN 51350-02
Four ball wear test, mm			0.1	28			DIN 51350-03
FZG test ( A/8.3/90 )			>1	4			DIN 51354
Property (Unit)	DC680	DC 100	DC 150	0 00 200	N DC 25	00 PC 3000	Method
Property (Unit)	<b>PG680</b>	PG 100	) PG 150	0 PG 200	00 PG 25	00 PG 3000	Method
Property (Unit) Density at +15 °C	<b>PG680</b> 1075	<b>PG 100</b>	<b>PG 150</b> 1074	0 PG 200 1073	00 PG 25 1073	00 PG 3000 1072	Method DIN 51757
Property (Unit) Density at +15 °C Viscosity @40°C, cSt	PG680 1075 680	PG 1000 1074 1000	PG 150 1074 1500	0 PG 200 1073 2000	00 PG 25 1073 2500	00 PG 3000 1072 3000	Method DIN 51757 DIN 51550
Property (Unit) Density at +15 °C Viscosity @40°C, cSt Viscosity @100°C, cSt	PG680 1075 680 114	PG 1000 1074 1000 152	<ul> <li>PG 150</li> <li>1074</li> <li>1500</li> <li>226</li> </ul>	0 PG 200 1073 2000 345	00 PG 25 1073 2500 410	00 PG 3000 1072 3000 496	Method DIN 51757 DIN 51550 DIN 51550
Property (Unit) Density at +15 °C Viscosity @40°C, cSt Viscosity @100°C, cSt ISO Viscosity Grade	PG680 1075 680 114 680	PG 1000 1074 1000 152 1000	<ul> <li><b>PG 150</b></li> <li>1074</li> <li>1500</li> <li>226</li> <li>1500</li> </ul>	0 PG 200 1073 2000 345 2000	00 PG 25 1073 2500 410 2500	00         PG 3000           1072         3000           496         3000	Method DIN 51757 DIN 51550 DIN 51550 DIN 51519
Property (Unit) Density at +15 °C Viscosity @40°C, cSt Viscosity @100°C, cSt ISO Viscosity Grade Viscosity Index	PG680 1075 680 114 680 261	PG 1000 1074 1000 152 1000 275	<ul> <li>PG 150</li> <li>1074</li> <li>1500</li> <li>226</li> <li>1500</li> <li>300</li> </ul>	0 PG 200 1073 2000 345 2000 320	00 PG 25 1073 2500 410 2500 385	00         PG 3000           1072         3000           496         3000           395         395	Method DIN 51757 DIN 51550 DIN 51550 DIN 51519 DIN ISO 2909
Property (Unit) Density at +15 °C Viscosity @40°C, cSt Viscosity @100°C, cSt ISO Viscosity Grade Viscosity Index Flash Point, °C	PG680 1075 680 114 680 261 290	PG 1000 1074 1000 152 1000 275 300	<ul> <li>PG 150</li> <li>1074</li> <li>1500</li> <li>226</li> <li>1500</li> <li>300</li> <li>280</li> </ul>	0 PG 200 1073 2000 345 2000 320 225	00 PG 25 1073 2500 410 2500 385 220	00         PG 3000           1072         3000           496         3000           395         210	Method DIN 51757 DIN 51550 DIN 51550 DIN 51519 DIN ISO 2909 DIN ISO 2592
Property (Unit) Density at +15 °C Viscosity @40°C, cSt Viscosity @100°C, cSt ISO Viscosity Grade Viscosity Index Flash Point, °C Pour Point, °C	PG680 1075 680 114 680 261 290 -27	PG 1000 1074 1000 152 1000 275 300 -24	<ul> <li>PG 150</li> <li>1074</li> <li>1500</li> <li>226</li> <li>1500</li> <li>300</li> <li>280</li> <li>-22</li> </ul>	0 PG 200 1073 2000 345 2000 320 225 -12	00 PG 25 1073 2500 410 2500 385 220 -12	00         PG 3000           1072         3000           496         3000           395         210           -10         -10	Method DIN 51757 DIN 51550 DIN 51550 DIN 51519 DIN ISO 2909 DIN ISO 2592 DIN ISO 3016
Property (Unit) Density at +15 °C Viscosity @40°C, cSt Viscosity @100°C, cSt ISO Viscosity Grade Viscosity Index Flash Point, °C Pour Point, °C Four ball weld load, N	PG680 1075 680 114 680 261 290 -27 1800	PG 1000 1074 1000 152 1000 275 300 -24 2000	<ul> <li>PG 150</li> <li>1074</li> <li>1500</li> <li>226</li> <li>1500</li> <li>300</li> <li>280</li> <li>-22</li> <li>2000</li> </ul>	0 PG 200 1073 2000 345 2000 320 225 -12 2200	00 PG 25 1073 2500 410 2500 385 220 -12 2200	00         PG 3000           1072         3000           496         3000           395         210           -10         2200	Method DIN 51757 DIN 51550 DIN 51550 DIN 51519 DIN ISO 2909 DIN ISO 2592 DIN ISO 3016 DIN 51350-02
Property (Unit) Density at +15 °C Viscosity @40°C, cSt Viscosity @100°C, cSt ISO Viscosity Grade Viscosity Index Flash Point, °C Pour Point, °C Four ball weld load, N Four ball wear test, mm	PG680 1075 680 114 680 261 290 -27 1800	PG 1000 1074 1000 152 1000 275 300 -24 2000	<ul> <li>PG 150</li> <li>1074</li> <li>1500</li> <li>226</li> <li>1500</li> <li>300</li> <li>280</li> <li>-22</li> <li>2000</li> <li>0.1</li> </ul>	0 PG 200 1073 2000 345 2000 320 225 -12 2200 28	00 PG 25 1073 2500 410 2500 385 220 -12 2200	00         PG 3000           1072         3000           496         3000           395         210           -10         2200	Method DIN 51757 DIN 51550 DIN 51550 DIN 51519 DIN ISO 2909 DIN ISO 2592 DIN ISO 3016 DIN 51350-02 DIN 51350-03

## Notes for Use

- Texol Gearsyn<sup>™</sup> PG synthetic gear oils are not compatible with mineral oils. Therefore a thorough cleaning of gearboxes, beraings and oil reservoirs are recommended.
- Condensation water may be absorbed without the danger of corrosion or a change in viscosity.
- Texol Gearsyn<sup>™</sup> PG synthetic gear oils are compatible with seals, e.g. NBR, FPM.
- They are compatible with nearly all conventional one-component and two-component lacquers.
- Quality standard: Texol Gearsyn<sup>™</sup> PG synthetic gear oils are CLP-PG oils and exceed the minimum requirements according to DIN 51517 for CLP gear oils