

INDUSTRIAL EP GEAR LUBRICANTS

ISO GRADES 68 - 680

Typical Properties

ISO Grade	68	100	150	220	320	460	680
AGMA Number	2 EP	3 EP	4 EP	5 EP	6 EP	7 EP	8 EP
Viscosity, cSt							
At 40 C	67.6	101.8	147.8	220.9	320.9	475.3	678.3
At 100 C	8.5	11.2	14.4	18.8	24.0	31.0	39.0
Viscosity, SUS							
AT 100 F	353	460	788	1166	1707	2478	3691
At 210 F	52	62	73	85	106	132	159
Viscosity Index	95	95	95	95	95	95	95
Pour Pt, Deg F/C	-15/-26	-15/-26	-10/-23	-5/-21	-5/-21	0/-18	+5/-15
Rust Test, ASTM D665	<-----Passes Procedures A & B----->						
Four Ball Weld, EP kgf	275	275	275	275	275	275	275
Four Ball Load Wear Index	55	55	55	55	55	55	55
Four Ball Wear, mm ²	0.35	0.35	0.35	0.35	0.35	0.35	0.35
FZG Load Stage	>12	>12	>12	>12	>12	>12	>12
Foaming, Three Sequences	<-----0/0----->						
Gravity, API @ 60 F	29	28	27	26	26	25	24

The values shown are typical of current production. Some are controlled in the manufacturing process, while others are not. All of them may vary within tolerable ranges.

These Industrial EP Gear Lubricants are designed for multi-purpose and extreme pressure industrial gear applications where loads can be high with accompanying shock impact on gear systems. They are formulated with highly refined base stocks and compounded with additives to impart extreme pressure film strength, withstand high thermal loading, resist corrosion, and galling from inadequate film strength. The EP action is formed by chemical reaction between the additives system and the metal surfaces under conditions of metal-to-metal contact resulting in boundary film lubrication protection.

APPLICATIONS

Recommended for their excellent oxidation and thermal stability to minimize viscosity increase and sludge formation at operating temperatures up to 200 F. They separate readily from water. Industrial EP Gear Oils are suitable for heavily loaded gear units and for gears subjected to shock loading. The product is suggested for lubrication of various gear types such as spur, bevel, helical, worm, and industrial hypoid cases on mobile type equipment. Included also are gear systems incorporated in cement mills, ball mills, crushers, hoists, winches, and marine equipment. They are also suitable for application in plain and rolling contact bearings. Industrial EP Gear Lubricants meet requirements of AGMA 250.04, US STEEL 224, and Cincinnati Milacron for appropriate viscosity grades.