



Gear Oil JM

Conoco Gear Oil JM is a high quality, extreme pressure industrial gear lubricant developed for lubrication of Joy Machinery mining equipment and other stationary and mobile equipment operating in presence of water. It is specially formulated to emulsify water and still maintain its high film strength and provide excellent rust and corrosion protection.

Gear Oil JM is available in three viscosity grades: ISO 220, 320 and 460 (AGMA 5 EP, 6 EP and 7 EP). It is manufactured with high viscosity-index paraffinic base oils and fortified with additives to emulsify water and provide excellent lubricity for the bearings and gears.

Applications

- Enclosed gearboxes of longwall mining machinery
- Enclosed industrial gearboxes operating in presence of water, such as in steel mills
- Gear drives and pinion stands of metal rolling mills, ball mills and cement mills
- Enclosed gearboxes of heavy construction and excavation equipment

Gear Oil JM meets the performance requirements of:

- Joy Mining Machinery transmission oil specifications TO-HD (ISO 460), TO-HEP (ISO 320) and TO-MEP (ISO 220)

Outstanding Features

- Outstanding load-carrying capacity
- Excellent protection against scuffing and wear
- Good thermal and oxidative stability
- Excellent lubricity
- High film strength
- Emulsifies in the presence of moisture

**Emulsifiable
Extreme-Pressure
Industrial Gear
Lubricant**

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Gear Oil JM
Typical Properties

	ASTM Method			
ISO Grade		220	320	460
AGMA Grade		5 EP	6 EP	7 EP
Gravity, °API	D287	27.7	26.9	26.1
Specific Gravity @ 60 °F (15.6 °C)		0.889	0.893	0.898
Density, lb/gal		7.41	7.45	7.49
Flash Point (COC),	D92			
°C		249	254	256
°F		480	489	493
Pour Point,	D97			
°C		-24	-18	-15
°F		-11	0	+5
Viscosity,	D445			
cSt @ 40 °C		220	320	460
cSt @ 100 °C		19.0	24.4	35.5
SUS @ 100 °F		1163	1702	2439
SUS @ 210 °F		97	121	173
Viscosity Index	D2270	97	97	97
Total Acid Number (TAN)	D974	0.61	0.60	0.60
Rust Test	D665 B	Pass	Pass	Pass
Four-Ball Wear, Scar Diameter, mm	D4172	0.26	0.25	0.25
Copper Corrosion	D130	1b	1b	1b
Demulsibility, Water after 48 hrs, Vol %	D1401	0	0	0
FZG Gear Test, Pass Stage	D2782	12	12	12
ASTM Color	D1500	4.5	5.0	5.5

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