



76 Extra Duty Circulating Oil EP

76 Lubricants Extra Duty Circulating Oil EP is a high-quality, extreme-pressure gear oil developed for the lubrication of backup roll bearings in steel and aluminum rolling mills.

Extra Duty Circulating Oil EP is available in one intermediate viscosity grade: ISO 320/460. It is formulated with high-quality paraffinic base oils and select additives to provide excellent wear protection, rapid water separation, good oxidation resistance, protection against rust and corrosion, and resistance to foaming. It has good extreme-pressure and antiwear properties for protection under conditions of heavy loading, especially at startup. It has excellent water-separating properties to minimize the formation of emulsions in circulating systems subject to contamination with large quantities of water, rolling solutions, dirt and scale. It has good oxidation resistance and thermal stability at high temperatures to minimize sludge and varnish formation, and provide long service life. It protects system components against rust and corrosion, and is resistant to excessive foam buildup that can interfere with proper lubrication.

Applications

- Backup roll bearings in hot and cold rolling mills
- Circulating systems where water contamination is a problem
- Large, slow-speed gears in mixers and mills

Extra Duty Circulating Oil EP meets the performance requirements of:

- ARMCO Circulating Oil
- U.S. Steel 135, Mill Circulating Oil
- U.S. Steel 136, Antiwear Mill Circulating Oil

Features/Benefits

- Excellent water-separating properties
- Excellent wear protection
- High load-carrying capacity
- Good oxidation resistance and thermal stability
- Protects against rust and corrosion
- Good foam resistance

**Extreme-Pressure
Rolling Mill
Circulating Oil**

**Customer Service
Number:
1-888-766-7676**

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76 Extra Duty Circulating Oil EP
Typical Properties

ISO Grade	320/460
Density, g/cm ³ @ 15.6°C (60°F)	0.896
Density, lbs/gal @ 15.6°C (60°F)	7.46
Color, ASTM D1500	4.5
Flash Point (COC), °C (°F)	307 (585)
Pour Point, °C (°F)	-9 (16)
Viscosity,	
cSt @ 40°C	390
cSt @ 100°C	27.4
SUS @ 100°F	2,084
SUS @ 210°F	135
Viscosity Index	96
Copper Corrosion, ASTM D130	1a
Demulsibility, ASTM D1401, minutes to pass	< 30
Demulsibility, Free Water @ 82°C, ASTM D2711, ml	35
Foam Test, ASTM D892	Pass
Rust Test, ASTM D665 A	Pass
Timken OK Load, ASTM D2782, lb	55

Health and Safety Information

For recommendations on safe handling and use of this product, please refer to the Material Safety Data Sheet via <http://w3.conocophillips.com/NetMSDS>.

Due to continual product research and development, the information contained herein is subject to change without notification.

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