

# UNITED OIL COMPANY

Quality Industrial Lubricants Since 1906

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## UNITED COATING OIL CO – 100M ( MIL-PRF-3150)

**United Coating Oil CO – 100M** is a medium viscosity long term rust preventative coating oil designed to be applied to steel strip after pickling, temper rolling, galvanizing, and after processing before storage. **CO- 100M** is compatible with all temper mill coolants and one-phase oil-based coating oils, and may be applied by spray, felt wiper, or electrostatic oiler. **CO – 100M** does not contain silicones, lanolin, hardeners, or waxes. It is relatively easily cleaned from the steel surface prior to processing of the strip.

**CO – 100M** is balanced between barrier type corrosion protection and additive based corrosion protection. Barrier protection involves simply preventing moisture (water) from reaching the steel surface of the coil. This is provided in **CO – 100M** by the carrier or base oil and the water displacing additive.

Once barrier protection is established, additional protection is also needed for damaged areas of the barrier film e.g. scratches, nicks, uneven application and from stain and oxidation. As such, **CO – 100M** contains non-staining, acid neutralizing film formers, polar additives, water displacers, and anti-oxidants.

### Typical Physical Properties

Appearance : Amber liquid

Viscosity @ 100° F : 460-600 SSU

Flash Point, COC : 302° F

Specific Gravity @ 60° F : 0.867

### Typical Performance Properties

ASTM D1748 (Humidity Cabinet) : 60 + days

MIL-C-22235

Type A-Ready Mix : Passes

Section 3.4 (Stack Test) : No Stain

Electrostatic Oil Application Rating  
good spray with cusping (1-2mm)  
suitable for all application methods

### Cleanability: U.S. Steel SOP

Loose stack : 25 sec. Better than standard RP

Tight stack : 30 sec. Similar to standard RP

### Independent Laboratory Test Result

	<u>United CO – 100M</u>	<u>Competitor EG</u>	<u>Standard RP</u>
ASTM D1748 Humidity Cabinet (Steel)	60 + days	avg 630 hrs	avg 456 hrs
ASTM D1748 Humidity Cabinet (Galv)	avg 228 hrs	avg 234 hrs	avg 228 hrs
ASTM B117 Salt Spray (Steel)	> 24 <48 hrs	< 8 hrs	<16 hrs
ASTM B117 Salt Spray (Galv)	< 16 hrs	< 16 hrs	<16 hrs
Acid Fume (Steel)	3.0 – 3.5 hrs	1-2 hrs	1 hr
Acid Fume (Galv)	112 hrs	112 hrs	112 hrs