

Polymer TL-48 (Protec)

Extrusion Cold Form Lubricant

TL-48 is a water based dry film lubricant which imparts extremely high lubrication and anti-friction properties when applied to metal surfaces. Particularly effective for cold forming and metal drawing operations where zinc phosphate (micron mc-900 zinc coating system) coatings are applied.

TL-48 provides low residue levels (a problem with soap and other lubes) allowing for greater dimensional and finished part weight control. Does not rub off, internally bonded for durability.

TL-48 provides a significant “highest performance, superior quality & lowest cost” advantage over oil and soap-type products. Can be used on all types of metals, with or without phosphate coatings. (Depending on the severity of the drawing operations) Simple air dry dip process.

Features & Benefits

- Eliminate zinc and soap sludge from waste processing.
- Use with micron zinc or interlock non-zinc process.
- Good corrosion resistance and easily removed if needed in simple wash system.
- Improved die life, due to higher lubrication properties.
- Easy to control. Ash free. Low residue
- Easily removed from parts or process barrels and pins with wash rinse.
- No odors, mild to employees handling parts. Non-hazardous.
- Easily wastewater treatable. Biodegradable.
- Non dusty, locked coating which imparts lubrication and anti-corrosion.

Physical Data

pH	9.9
Product Type	Liquid
Spec. Gravity	1.00
lbs./gal.	8.34
Foam, 0 = Low, 9 = High	0
Shelf-Life Years	10 years
Freeze Information	Damaged by freezing.

Typical Processing

- Pre-clean parts to remove grease, oil, oxide, rust and scale.
 - (Example: a) clean #375- I s, b) rinse, c) acid pickle to remove rust, d) rinse.)
- Zinc phosphate coat, micron process, typically 500-2500 mg/sq. Ft
- Neutralized warm rinse to pH of 8-11. *allow dry down of parts
- Dip into poly lube, 110-125 deg. F., 25-50% by volume with soft water. Ph 9.5, mild light stirring agitation (coatings of 200 - 600+ mg/ft2)

Note: Apply two dips as needed to achieve higher coatings per application and to assure parts are 100% coated at the center of the load.

- Air dry.

Packaging

Container Type	Poly
Net Units	455
Tare Wt.	25 lb.
Gross Wt.	483
DOT_Name	Not regulated by DOT (Road Shipments). Not subject to IMDG code. (Ocean Shipments).
DOT Hazard	Not regulated.
Tarriiff ID	1521.10.40

Use Parameters

Concentration Range	Refractance range; 3-7 (=15-30%)
Temperature Range	105 – 125~
Time Range	Dip, dry + dip.
Agitation	Mild circulation.

Waste Disposal

Neutralize pH, remove fats, oils, grease, and heavy metals.

Holding Tank Materials of Construction

Steel or stainless steel.

Other Information

It is important that the OSHA DATA, "Material Safety Data Sheet" be carefully read and reviewed with the users of this product. OSHA data is required to be posted in the work area by law.

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For more information on this process,
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