

POLY LUBE TL-48 50%

EXTRUSION COLD FORM LUBRICANT

POLY LUBE TL-48 50% 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.

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 TOUGHNESS.

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. Simple air dry dip process.

Features & Benefits

- ELIMINATE ZINC & SOAP SLUDGE FROM WASTEWATER SYSTEM.
- Use with non-zinc "INTERLOCK PRE-POLYMER" or with zinc phosphate.
- 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. RESIDUAL LUBRICANT DOES NOT INTERFERE WITH SUBSEQUENT MACHINING OR COOLANT FLUIDS.
- NO ODORS, mild to employees handling parts. NON-HAZARDOUS
- EASILY WASTEWATER TREATABLE. BIODEGRADABLE..
- NON-DUSTING locked coating which imparts lubrication and corrosion.

Typical Processing

- 1) Pre-clean parts to remove grease, oil, oxide, rust and scale. (Example:
 - a. clean #375- L S, b) Rinse, c) Acid pickle to remove rust, d) Rinse
- 2) Zinc phosphate coat, MICRON PROCESS, TYPICALLY 500-2500 mg/sq. ft
- 3) Neutralized warm rinse to ph of 8-11. ***Allow dry down OF PARTS**
- 4) Dip into POLY LUBE , 110 -125 DEG. F. , 25-50% by volume with soft water. p.H. 9.5+, mild light stirring agitation.
Apply two dips as needed to achieve higher coatings per application and to assure parts are 100% coated at the center of the load.
- 5) Air dry.



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Product Code: 2530037

Revision Date: January 9, 2025

Specifications

pH	9.5
Prod._Type	Liquid
Spec.Grav	.9934
LBS./GAL	8.28
FOAM 0=low 9=high	0
Shelf life years:	10
Freeze information	Damaged by freezing

Packaging

Container Type	Poly Drum
Net Units	455.59
Tare Wt.	25 LB.
Gross Wt.	480
Dot_Name	Not Regulated by D. O. T.
DOT Hazzard	Not Regulated
Tariff ID	1521.10.40

Use parameters

Concentration Range	Refractometer level of 6-12~
Temp. Range	105-125~ Deg. F.
Time Range	DIP, dry + DIP
Agitation	Mild circulation.

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.

Waste Disposal

Typical: Lower ph to 4.0, treat with coag. "alum. chloride", raise ph to >7.5 & to floc.

Holding Tank Materials of Construction

Steel, Stainless or Poly.



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Testing, Operating & Troubleshooting Data

Refractometer= 5.5-6.5 Range,

Ph = 9.0-11.5 : Use Poly Lube Ph Adjuster To Raise.

Coating Weights: See Lab For Procedure. (300-1,000 Mg/ft² Typical)

Dry Down Solids: See Lab For Procedure.

Coating Compatibility, Subsequent Processing:

Production Experience Has Shown That The Lubricant Coating Does Not Interfere With Subsequent Processing: The Residual Coating Has Proven To Be Compatible With Other Coolant Systems, Cutting Fluids, Grinding Fluids And Machining Fluids. If Present, Particulate Lubricant Is Easily Removed In Conventional Filters Found On All Fluid Systems. Heat Treating Is Not Impacted By This Type Of Lube Coating.

Coating Removal If Desired:

Coatings Can Be Removed By Simple Production Washing Procedures Using A Detergent Alkaline System Such As Power Clean Aps-1033 Or Others.

Heating: Heaters Must Be Submerged. Above Solution Heaters Or Plates Will Cause Crusting And Excessive Particles.

Mixing: Use Adjustable Air Operated Or Electric Slow Stirring Mixers That Will Not Bubble Or Suck Air Into The Bath.

Filtration: Use 100 -200 Micron Bag Filters Or Spun Wound Filters

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Trouble Shooting Process Baths:

Problem: Suggested Corrective Action:

- | | |
|---|--|
| 1) Low Coating Weight
Or Thin Coatings | * Bath Concentration Too Low: Test & Adjust
* Ph Of Bath Too Low. Adjust With Ammonia As Needed. |
| 2) Heavy Coating Weights
Or Coatings Too Thick | * Bath Concentration Too High: Test & Adjust |
| 3) Dusty Granular Coatings | * Phosphate Coating Too Heavy "over 2,000 Mg/ft2.
* Phosphate Bath Out Of Balance Throwing Sludge
* Phosphate Bath Has Excess Iron Causing Dust |
| * Phosphate Bath Requires Desludging. | |
| * Polymer Bath Requires Filtration Due To Dried Particles Floatin | |
| 4) Bath Granular, Like Oatmeal
(coatings Do Not Stick) | *polymer Bath Has Split Due To Low Ph. Bath Allowed To Go To Acid Ph Or Too Ow Of Ph (re:<8.0)low Level.a) Adjust Ph, Filter, Replenish
Polymer Solids, Or B) Dump Bath, Clean Tank & Prepare New Coating Bath.
C) Correct Source Of Low Acid Ph. |
| 5) Rusty Or Red Stained Parts: | * Parts Not Properly Rinsed And Neutralized.
* Low Concentration In Polymer Bath.
* Ph Low In Polymer Bath. Correct Ph.
* No Phosphate Coating On Surface Due To Rust Or Oxide Not Removed Prior To Phosphating. |
| 6) Chips Or Particles On Coated | * Dried Particles Of Polymer Floating In The Bath.
Parts: Filter Or Screen Solution To Remove Floatin Particles.
* Particles Are Sourced From Dried Polymer From Sides Of Process Tank Or Tank Sitting Unagitated Creating A Dried Surface Skin.
* Use A Floating Mat Cover When Not In Use, Screen Or Filter Particles |
| 7) Surface Skin, Died Polymer | * Maintain Slight Agitation Or Circulation.
* Cover Surface With A Poly Floating Surface Mat To Prevent Skinning Or Surface Drying |
| 8) Bare Metal Or Spots Of Bare: | * No Phosphate Coating On Surface Or Spots Of No Phosphate Due To Poor Cleaning Of Oil, Grease, Rust Or Oxide. |



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For more information on this process,
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