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# DRY LUBRICANTS FOR LOW AND MEDIUM CARBON WIRE

Applications: nails, annealing, galvanizing, redrawing

PANLUBE ®	PROPERTIES	CHARACTERISTICS	SURFACE PREPARATION
<b>S10</b>	calcium lubricants with low fat content	For low and medium speed drawing.	The rod preparation can be 1. by mechanical descaling 2. by brushing 3. by abrasive sanding 4. by acid pickling  The rod preparation can be pre-coated by 1. lime 2. water soluble carriers  All products are suitable for pressure dies.
<b>S14</b>		For medium speed drawing.	
<b>S25</b>		For high speed drawing.	
<b>S27</b>		No residual in the pickling bath after annealing.	
<b>S37</b>			
<b>S39</b>		For medium and high speed drawing.	
<b>S40</b>		For high speed drawing.	
<b>S44</b>		Heavy coating for high speed drawing.	
<b>S55</b>		For high speed drawing, high melting point.	
<b>S240</b>		Suitable for big diameters, clean surface.	
<b>S433</b>		Contains E.P. additives, it is suitable for machines with limited cooling.	
<b>S466</b>	calcium - sodium lubricants	For very high speed starting from belt descaler and pre-coated rod. Suitable for in-line machines. To be used on the first block followed by a sodium lubricant.	
<b>S933</b>		To be used for big diameters on 2-5 steps when a low residual is required on the finished wire.	
<b>S1000</b>	borax free sodium lubricant with medium fat content	Used after a calcium lubricant to reduce the final coating or from the first pass with lime coated rod.	
<b>S1400</b>	borax free sodium lubricant with high fat content	For the final dies or for redrawing of fine wire, clean nail wire.	
<b>S1440</b>	low borax sodium lubricants	For the production of fine wire at very high speed, up to 40 m/s.	
<b>S1531</b>		Suitable for big diameters for the production of clean wire.	

## DRY AND WET LUBRICANTS FOR PLATING QUALITY WIRE (P.Q.W.)

PANLUBE ®	PROPERTIES	CHARACTERISTICS	SURFACE PREPARATION
S212	calcium - sodium lubricants with low fat content	Partially water soluble. It can be used for multiple die at high speed. For better cleaning on the final dies a Sodium lubricant is recommended (PANLUBE S1400).	1. acid pickling and lime or pre-coating (PANCOVER)  2. mechanical descaling  3. mechanical descaling and brushing  4. abrasive belt descaling  5. in-line shot blasting (Deblasting process)  The final cleaning is generally obtained by a degreasing solution in the last die box using a single or double rotating die. (See our Rotating Die Box LPL 43/2).
S466			
S616			
S622			
S933	calcium - sodium lubricant with medium fat content	Recommended for big diameters, bright finishing, rust protection.	
S1030	calcium - sodium lubricant with high fat content	Recommended for high speed drawing, to be used on the first dies, followed by S1400 or S1531.	
S2000	calcium - sodium lubricant	For the production of clean wire.	
S1400	borax free sodium lubricant	Fully water soluble, it can be used for all dies in case of lime coating, or after a calcium-sodium lubricant in case of mechanical descaling.	
S1440	low borax sodium lubricant		
S1450	borax free sodium lubricant with medium fat content		
S1531	low borax sodium lubricant with high fat content		
G4210	jelly paste	Special paste for one die application on lime coated rod, excellent bright finishing and good protection against corrosion.	
G4260	light green paste	High lubrication paste to be used for heavy operation, one step.	
L3005	liquid lubricants soluble in water	For wet drawing of fine wire with bright finishing.	
L3009		To be added at 5% to the final degreasing solution.	
L3131	solvent based lubricant	For removal of the residual lubricant after wet drawing for staple wire.	

# LUBRICANTS AND COATINGS

Wire for fibers - fine wire redrawing

PANCOVER ®		PROPERTIES	CHARACTERISTICS	SURFACE PREPARATION
4750	low borax pre-coating compound, water soluble		Suitable for high speed drawing, for in-line or batch treatment, low humidity pick up, good anti-rusting properties.	
4760	borax free pre-coating compound, water soluble			
4780				
PANLUBE ®				
S27	calcium lubricant for high speed mechanical descaling		For first drawing starting from mechanical descaling and pre-coating, followed by S1280 or S1440.	1. acid pickling and lime or pre-coating  2. belt descaling and pre-coating  3. mechanical descaling, brushing and pre-coating
S44	calcium lubricant for high speed			
S330	calcium - sodium lubricants for high speed		To be used for very high speed starting from belt descaled and pre-coated rod. Suitable for in-line machines. To be used on the first 1-3 blocks followed by sodium lubricants S1280 or S1440.	
S466				
S1280	low borax sodium lubricant with high melting point		Totally soluble in water and very easy to be removed.	
S1400	borax free sodium lubricant			
S1440	low borax sodium lubricant with high fat content			

## LUBRICANTS FOR ROLLING

PANLUBE ®	PROPERTIES	CHARACTERISTICS	SURFACE PREPARATION
S14	calcium lubricant	To be used on the first step with die, followed by multistep rolling operations.	Mechanical descaling.
S66	calcium - sodium lubricant		
S1531	low borax sodium lubricant	High content of fatty acids. For high speed rolling machines for low carbon wire. Low residual on the final wire. Surface easy to clean and compatible with hot dip galvanizing and plating.	Mechanical descaling, brushing, belt descaling, with or without coating.
S2550	borax free sodium lubricant		
DEROL 1	water soluble semisynthetic oil	For mesh production and multiblock rolling operations. Final surface easy to clean and fully compatible to welding and plating operations.	Annealed.
L3012		For stainless steel rolling for flat strip production. Very easy to be removed with the standard U.T.S. or electrolytic systems.	

## PHOSPHATE COATINGS (PANCOVER F SERIES)

PANCOVER ®	PROPERTIES	CHARACTERISTICS	SURFACE PREPARATION
F4500A	zinc phosphates accelerated with nitrate/nitrite	For general applications for cold heading and high carbon steel wire: high coating weight, very adherent crystals. Suitable for oil and dry lubrication. It can be used either for batch or in-line treatments.	
F4501P			
F4620UN	zinc phosphates accelerated with nitrate/chlorite	Universal product for application on high and low carbon steel, on acid pickled or shot blaster rod. Single product easy to use, very stable working conditions. It produces a smooth and black finish on the drawn wire, it can be used for batch or in-line operations.	1. acid pickling 2. shot blasting
F4640		It is specific for cold heading wire, prepared by acid pickling: high coating weight suitable for the reactive soap coating.	
F4550A	zinc calcium phosphates accelerated with nitrate/nitrite	Product suitable for high speed drawing for high carbon steel wires.	Acid pickling.
F4551P			

## NON REACTIVE PRE-COATINGS (PANCOVER)

4700	chloride free products, special additives have been included to enhance the adherence to the rod/wire surface	Borax free pre-coating product for stainless steel wires, bars, tubes and profiles. The coating film has a low tendency to moisture pick-up enabling long storage before final use.	1. acid pickling 2. shot blasting
4730		Medium borax content pre-coating product for stainless steel wires, bars, tubes and profiles. The coating film has a low tendency to pick up moisture enabling long storage before final use. This product can be used either for stainless steel or carbon steel, batch or in-line treatment, specially indicated for mattress spring wire.	3. molten salts descaling
4750	low borax pre-coating	Low borax pre-coating product for stainless steel wires, bars, tubes and profiles. The coating film has a low tendency to moisture pick-up enabling long storage before final use.	
4760	borax free product, special additives have been included to enhance the adherence to the rod/wire surface	Designed to avoid the presence of boron in waste water: it can be used either on rod or fine wire.	1. acid pickling 2. shot blasting
4770	very low hygroscopicity, low borax	Particularly indicated for high humidity environment.	
4780	borax free pre-coating compound, water soluble	It is used for the in-line treatment of multi-wire coating after in-line phosphate.	
S1300	special activated sodium stearates	Suitable for the preparation of finishing coating for Cold Heading wire. Application for hot dip.	Shot blasting or acid pickling and phosphate coating.
S1303		Suitable for the preparation of finishing treatment of steel tube after phosphate coating.	
POL651E	polymer based product	To be used after phosphate coating for cold heading application.	

## DRY AND WET LUBRICANTS FOR COLD HEADING QUALITY WIRE (C.H.Q.)

PANLUBE ®	PROPERTIES	CHARACTERISTICS	SURFACE PREPARATION
<b>S14</b>	calcium lubricants	For the pre-drawing before annealing, good lubrication.	Pickled and lime coating or mechanical descaling.
<b>S209</b>		For the pre-drawing before annealing. It leaves very low residual after the furnace.	Shot blasting or pickling and lime.
<b>S2860T</b>	polymer lubricant	For the pre-drawing before annealing. It leaves zero residual after the furnace.	
<b>S933</b>	calcium - sodium lubricant	For the pre-drawing, 1-3 dies before annealing.	Pickled and lime coating or pickled and phosphate coating.
<b>S2800V</b>	calcium - aluminium lubricant	In combination with PANCOVER. These products leave a low residual and promote high performance in cold heading operations.	Acid pickling, phosphate coating, lime or reactive stearate coating.
<b>S2920V</b>	calcium - sodium lubricant		
<b>S1300</b>	borax free, reactive stearate, water soluble	For the preparation of reactive lubrication bath after annealing, pickling and phosphate coating.	After phopshate coating.
<b>S1470</b>	borax free, sodium lubricant with medium content of fatty acids, low melting point	For the final calibration after annealing and phosphate coating.	Annealing + phosphate and lime/phosphate and soap coating/polymer coating.
<b>S1531</b>	low borax, sodium lubricant with high content of fatty acids		
<b>G4210</b>	jelly-paste	For the final calibration after annealing, bright finishing.	Phosphate and lime.
<b>G4218</b>			
<b>L3102</b>	lubricating oils with E.P. additives	Different viscosity to cover different applications and materials. E.P. additives for the final calibration before the forming operation. Fully compatible with the heading oil.	1. acid pickling and coating 2. in-line shot blasting
<b>L3104</b>			
<b>L3106</b>			

## ROLLING OR DRAWING OF ELECTROWELDED MESH WIRE

PANLUBE ®	PROPERTIES	CHARACTERISTICS	SURFACE PREPARATION
<b>S101</b>	calcium lubricants with high melting point	Low residual on finished wire.	Mechanical descaling.
<b>S105X</b>		Extra coarse grain to reduce the dust formation.	
<b>S206</b>	calcium lubricant with low fat content	Low residual on finished wire. It has been designed for drawing and rolling operations at high speeds. Low consumption.	
<b>S452VV</b>	calcium lubricant with high fat content	Extra fine product for very low consumption.	
<b>S66</b>	calcium - sodium lubricants with medium fat content	Low residual on finished wire.	
<b>S630B</b>		Dust free product.	
<b>DEROL1</b>	water soluble semisynthetic oil	At 10% concentration for the rolling of round and indented wire.	
<b>L3804</b>	soluble oil	For the lubrication of the feeding wire to the welding machine.	

## **PANLUBE S940**

Low Carbon

Plating Quality Wire

Dry Drawing Lubricants

For big diameters and bright finishing

### Characteristics

calcium - sodium lubricant with medium fat content

### Surface preparation

Recommended for big diameters, bright finishing, rust protection.

Surface preparation:

1. acid pickling and lime or pre-coating (PANCOVER)
2. mechanical descaling
3. mechanical descaling and brushing
4. abrasive belt descaling
5. in-line shot blasting (deblasting process)

The final cleaning is generally obtained by a degreasing solution in the last die box using a single or double rotating die. (See our rotating die box LPL 43/2).

## **PANLUBE L3000**

Low Carbon

Nails, Annealed Wire, Galvanized Wire

Wet Drawing Lubricants

For high lubrication and high speed

Fibers & Fine Wire

Wet Drawing Lubricants

For high lubrication and high speed

### Characteristics

water soluble oil for the preparation of water based solution for wet drawing

### Surface preparation

High lubrication and high speed for the drawing as low and medium carbon wire and galvanized wire.

Surface preparation:

1. Galvanized wire

## **PANLUBE L3019**

Low Carbon

Nails, Annealed Wire, Galvanized Wire

Wet Drawing Lubricants

For high lubrication and high speed

Fibers & Fine Wire

Wet Drawing Lubricants

For high lubrication and high speed

### Characteristics

water soluble oil for the preparation of water based solution for wet drawing

### Surface preparation

High lubrication and high speed with shiny finishing for the production of staple wire.

Surface preparation:

1. Galvanized wire

## **PANLUBE L3028**

Low Carbon

Nails, Annealed Wire, Galvanized Wire

Wet Drawing Lubricants

For high lubrication and high speed

Fibers & Fine Wire

Wet Drawing Lubricants

For high lubrication and high speed

### Characteristics

water soluble oil for the preparation of water based solution for wet drawing

### Surface preparation

High lubrication and high speed for the drawing as low and medium carbon wire and galvanized wire.

Surface preparation:

1. Galvanized wire

## **PANLUBE L3010**



Low Carbon

Nails, Annealed Wire, Galvanized Wire

Wet Drawing Lubricants

For clean wire

Fibers & Fine Wire

Wet Drawing Lubricants

For clean wire

### Characteristics

liquid lubricant soluble in water

### Surface preparation

Specific for the production of low carbon clean wire.

Surface preparation:

1. Galvanized wire (D.A.G.)
2. Phosphated coated

## **PANLUBE S624**

Low Carbon

Plating Quality Wire

Dry Drawing Lubricants

For multiple die at high speed

### Characteristics

calcium-sodium lubricant with low fat content

### Surface preparation

Partially water soluble.

For better cleaning on the final dies a Sodium lubricant is recommended (Panlube S 1400).

1. acid pickling and lime or pre-coating (PANCOVER)
2. mechanical descaling
3. mechanical descaling and brushing
4. abrasive belt descaling
5. in-line shot blasting (Deblasting process).

The final cleaning is generally obtained by a degreasing solution in the last die box using a single or double rotating die. (See our Rotating Die Box LPL 43/2).

## **PANLUBE G4218**

Low Carbon

Plating Quality Wire

Wet Drawing Lubricants

For bright finishing and corrosion protection

### Characteristics

jelly paste

### Surface preparation

Special paste for one die application on lime coated rod, excellent bright finishing and good protection against corrosion.

1. acid pickling and lime or pre-coating (PANCOVER)
2. mechanical descaling
3. mechanical descaling and brushing
4. abrasive belt descaling
5. in-line shot blasting (Deblasting process).

The final cleaning is generally obtained by a degreasing solution in the last die box using a single or double rotating die. (See our Rotating Die Box LPL 43/2).

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