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# DRY LUBRICANTS FOR HIGH CARBON WIRE

Applications: ropes, springs, ACSR, piano wire...

PANLUBE®	PROPERTIES	CHARACTERISTICS	SURFACE PREPARATION
<b>S400</b>	calcium lubricants with medium content of fatty acids	For medium and high drawing speed. On all steps for roping wire before patenting. For the first dies followed by a sodium lubricant for spring wire.	1. acid pickling, phosphate coating and borax or PANCOVER coating  2. in-line shot blasting (Deblasting process) and PANCOVER borax free coating  3. mechanical descaling  4. coil shot blasting and coating  5. belt descaling and in-line precoating  6. brushing and in-line coating+C3
<b>S405</b>		For high drawing speed.	
<b>S410</b>	calcium lubricants with low content of fatty acid	For the first pass of spring wire for smooth and back finishing.	
<b>S645</b>		High lubrication for breakdown of roping wire.	
<b>S410NS</b>	calcium - sodium lubricant with high content of fatty acids, E.P. additives	Suitable for very high speed of mattress spring wire by belt descaling and in-line coating, high performance product on mechanically descaled without coating.	
<b>S451</b>	calcium lubricant with medium content of fatty acids	For PC wire and high carbon with phosphate coating preparation.	
<b>S604</b>	calcium lubricant	For big diameters to be used on the first dies.	
<b>S612</b>	calcium lubricant with low content of fatty acids	Product suitable for medium and high drawing speed use. To be used on first dies with a sodium on the final dies. High performance drawing lubricant for rod breakdown.	
<b>S613</b>	calcium lubricant with medium content of fatty acids	Very high coating to be used on heavy drawing operation.	
<b>S1280</b>	low borax sodium lubricant	To be used for the 2nd drawing after patenting.	
<b>S1440</b>	low borax sodium lubricant with high content of stearic acids, high melting point	For high speeds and fine wire production. Low residual on the wire.	
<b>S1504</b>	borax free sodium lubricant with high content of stearic acids, high melting point	Borax free product for spring wire with smooth finishing.	
<b>S1600</b>	borax free sodium lubricant with high content of stearic acid	For spring wire with smooth finishing.	

## DRY AND WET LUBRICANTS FOR STEEL CORD, HOSE, SAW AND BEAD WIRE

PANLUBE®	PROPERTIES	CHARACTERISTICS	SURFACE PREPARATION
<b>S400</b>	calcium lubricant with medium content of fatty acids	Rod breakdown of bead wire.	1. pickling, phosphate and pre-coating
<b>S645</b>	calcium lubricant with low content of fatty acids		2. belt descaling and pre-coating
<b>S410NS</b>	calcium - sodium lubricant with high content of fatty acids, E.P. additives		3. mechanical descaling and coating (PANCOVER 4750, 4760, 4780)
<b>S1280</b>	low borax sodium lubricant with high content of stearic acids, high melting point	For first and second drawing of steel cord wire. High speed and performance. Pressure dies recommended.	Pickling and coating (PANCOVER 4750, 4760, 4780)
<b>S1285</b>	borax free sodium lubricant with high content of stearic acids, 100% environmentally safe		
<b>S1440</b>	low borax sodium lubricant with high content of stearic acids, high melting point		
<b>L3046</b>	semisynthetic emulsifiable oil		Brass coating.

## DRY LUBRICANTS FOR AS WIRE

Aluminium clad wire

PANLUBE®	PROPERTIES	CHARACTERISTICS	SURFACE PREPARATION
<b>S400V</b>	calcium lubricant	Product suitable for medium and high drawing speed. To be used on the first dies with a sodium lubricant on the final dies.	Not required.
<b>S410</b>	calcium lubricant	To be used on all the dies.	
<b>S444VV</b>	calcium lubricant with high melting pot	High lubricatin for high speed, pressure dies required.	
<b>S465-AS</b>	calcium lubricant high melting point containing molybdenum		Brass coating.
<b>S1285</b>	borax free sodium lubricant	For all the steps.	

## DRY LUBRICANTS FOR PC WIRE AND STRAND

PANLUBE ®	PROPERTIES	CHARACTERISTICS	SURFACE PREPARATION
<b>S400</b>	calcium lubricant with medium content of fatty acids	High melting point.	Acid pickling, phosphate coating and neutralized with salt.
<b>S410</b>	calcium lubricant with high content of fatty acids, E.P. additives	It can be used on all dies. Pressure dies recommended.	Acid pickling, phosphate coating and borax or PANCOVER coating.
<b>S410NS</b>	calcium - sodium lubricant with high content of fatty acids, E.P. additives	High performance. To be used on all the dies or followed by S1440 or S455.	Belt descaling and in-line coating.
<b>S645</b>	calcium lubricant with low content of fatty acids		Mechanical descaling and borax or PANCOVER coating.
<b>S422</b>	calcium lubricant with medium content of fatty acids, E.P. additives	Suitable for direct water cooling.	
<b>S455</b>	calcium - sodium lubricant	To be used on all the dies for PC wire to be galvanized. It can also be used on the final 2-3 dies after a calcium lubricant.	Acid pickling, phosphate coating and borax or PANCOVER coating.
<b>S613</b>	calcium lubricant with medium content of fatty acids	To be used on the first 4 dies, followed by sodium lubricant (S1440, S1504).	1. acid pickling, phosphate coating and borax, lime or PANCOVER coating 2. in-line shot blasting and borax 3. coil shot blasting
<b>S1440</b>	low borax sodium lubricant	High content of stearic acid, high melting point.	
<b>S1504</b>	borax free sodium lubricant	To be used in the final 2-3 dies.	
<b>S2001</b>	special sodium lubricant with medium content of fatty acids	To be used on all the dies.	Acid pickling phosphate and borax.

## DRY LUBRICANTS FOR DRAWING AFTER GALVANIZING

D.A.G. wire

PANLUBE ®	PROPERTIES	CHARACTERISTICS	SURFACE PREPARATION
<b>S400</b>	calcium lubricants with medium content of fatty acids	To be used in the first pass for spring wire followed by S1500, S1501, S1503, on the following dies.	Zinc coating.
<b>S431</b>		On all the passes for roping wire.	
<b>S1501</b>	low borax sodium lubricant		
<b>S1500</b>	borax free sodium lubricants	High content of stearic acid.	
<b>S1503</b>		To be used in all the dies for high speed if a clean surface is required.	

## 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.	

## **PANLUBE S1250**

High Carbon

Ropes, Springs, ACSR, Piano wire

Dry Drawing Lubricants

For 2nd drawing after patenting

Steel Cord, Bead, Saw, Hose

Dry Drawing Lubricants

For second drawing of bead wire

### Characteristics

low borax sodium lubricant

### Surface preparation

To be used for the 2nd drawing after patenting

Surface preparation:

1. acid pickling, phosphate coating and borax or PANCOVER coating
2. in-line shot blasting (deblasting process) and PANCOVER borax free coating
3. mechanical descaling
4. coil shot blasting and coating
5. belt descaling and in-line precoating
6. brushing and in-line coating

## **PANLUBE L3048**

High Carbon

Ropes, Springs, ACSR, Piano wire

Wet Drawing Lubricants

To be used for medium and high carbon

Drawing after galvanizing

Wet Drawing Lubricants

To be used for medium and high carbon

### Characteristics

Emulsifiable oil for high carbon galvanized wire

### Surface preparation

To be used for medium and high carbon either phosphate coated or galvanized.

Surface preparation:

1. galvanized wire (D.A.G.)
2. phosphate coated

## **PANLUBE L3000H**

High Carbon

Ropes, Springs, ACSR, Piano wire

Wet Drawing Lubricants

### Characteristics

To be used for medium and high carbon

### emulsifiable oil for high carbon galvanized wire

1. To be used for medium and high carbon either phosphate coated or galvanized. Surface preparation:

1. galvanized wire (D.A.G.)
2. phosphate coated

## **PANLUBE P02**

High Carbon

Steel Cord, Bead, Saw, Hose

Wet Drawing Lubricants

For steel cord wire

### Characteristics

Polymer - Lubricant dispersion

### Surface preparation

Water based concentrated dispersion of lubricant substances, based on micronized synthetic resins and polymers and E.P. additives.

For fine diameters.

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