

# HOT DEFORMATION TUBE & BAR SELECTION GUIDE



Condat lubricant for the manufacturing and mechanical working of tubes, bars and profiles, encompassing all materials.

Condat range dedicated to Tubes covers all the applications of Hot & Cold forming for Tube and Bars in the rolled, drawn or formed process.

Extensive product ranges are designed for all metals, i.e. carbon and stainless steel, aluminium, copper and alloys.

## HOT TUBE FORMING : CONDATUB

This range answers the specific needs for die and/or mandrel lubrication and minimises the constraints in the piercing, rolling and finishing operations.

In order to avoid high friction and pressure conditions in the hot metal forming process, the use of an efficient lubricant base, such as graphite, is required. Those friction forces can affect the energy, quality and/or production costs.

			Steel	Stainless steel	Aluminium	Copper alloys Copper coated	
Hot deformation	Salts	139					• Mandrel lubricant.
		803	•				Seamless pipe hot calibration. Organo-metalic compound solution.
	Graphite	B 34			•	•	Die lubricant, water base graphite dispersion.
		B 34-20	•		•	•	Die lubricant, ready to use.
		B 383 - B 385	•				Mandrel seamless tube. Synthetic graphite dispersion.
		B 382	•	•			Sizing lubricant.
	50				•	Cooling & protecting.	

## HYDRO FORMING

A dedicated product range, CONDATUB, has been designed to meet the requirement of this new and fast growing technology. Hydro forming requires lubricants with low friction film lubrication due to no

heating, slow displacement and high hertz pressure. Based upon either soap or graphite formulations, our lubricants enable parts to be formed with thin or thick films.



			Steel	Stainless steel	Aluminium	Copper alloys Copper coated	
Hydro formig	Graphite	B 31	•	•			Cold hydro forming operations, thick wall. Solid lubricant dispersion.
	Polymer	45	•	•	•		Hydro forming operations, thin wall. Complex emulsion.
		61	•	•	•	•	Bending, ready for use.



# CONDAT

LUBRIFIANTS



PROVIDING INNOVATION TO YOUR INDUSTRY

# COLD DEFORMATION TUBE & BAR SELECTION GUIDE



## COLD FORMING

A wide range of lubricants using a large array of chemistries and several types of lubrication: dry lubricant based on plasticity, grease and neat oils based on viscosity, wet lubricants and pastes based upon limit boundary systems.

These lubricants are used in combination with Condat non reactive precoatings VICAFIL TS (see surface coating selection guide).

Cold forming lubricant family is used for many types of applications such as straight drawing, bull block drawing, pilger rolling, rolling welded, sizing, bending, cutting, sawing tubes etc...

Lubricant oil base can be mineral, semi-synthetic or fully synthetic depending on the application, while soluble oils can be emulsion, micro emulsion, solution or dispersion type.

			carbon steel	Stainless steel	Copper & brass	Aluminium	Zirconium		
<b>COLD FORMING</b>	Dry	4 Z / TN 2693	•	•		•		Sodium base lubricant high reduction area.	
		SUMAC 3	•	•	•	•		Sodium base lubricant high reduction area. Low residue.	
	Neat Oils	TFH 1551 - TFH 200	•						Low viscosity, medium viscosity drawing oils.
		TFH 813 - TFH 81 - TFH 817	•						Tubes & bar drawing, synthetic, no residue after annealing.
		TFH 1218 - TFH 1167				•	•		Drawing aluminium tube < 30 mm, semi-synthetic.
		TFH 386				•	•		Drawing aluminium tube < 50 mm, synthetic lubricants.
		TFH 1058 - TFH 4002	•			•	•		Tubes & Bar drawing, no residues after annealing.
		TFH 4065 - TFH 4321 - TFH 4557			•				Tube drawing, small to medium size.
	Pastes	TFH 486 - TFH HCB			•				Difficult drawing, high viscosity.
		TFG 4295 - TFG HCE			•				Tubes & Bar drawing. Very viscous, high deformation.
		TFG 4298				•	•		Drawing non ferrous tube > 50 mm.
	Solubles	BG 1636	•						Bending.
		SP 100				•			Tube & bar drawing, can be used in both pure and diluted form.
		SP 1172				•		•	Tube drawing. Avoid cross contamination between inner and outer lubricants.
		SL 498	•						Rolling carbon welded tube. Micro emulsion.

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