

# Tube & Wire Drawing - High Performance Lubricants



FUCHS LUBRICANTS (UK) plc manufactures a comprehensive range of specialist drawing oils for the non-ferrous tube and wire industries. In-house research and development ensures that we can offer our Customers innovative lubricant solutions that facilitate the continual integrity, quality and efficiency of your production and manufacturing processes.

## Tube Drawing Lubricants - Cetodraw

The Cetodraw range includes: Fully synthetic neat oils that have been specially formulated to provide low carbon forming tendencies and ultimate bright anneal. These oils are particularly appropriate for ACR tube manufacturers. Neat oils that include superior low fume characteristics making them ideally suited to high speed and severe reduction draws in non ferrous copper and aluminium tube drawing applications and water miscible fluids for use in a variety of applications including drawing, pilger milling and quench bath additions.

The Cetodraw range represents superior lubricant solutions for tube drawing production in the non-ferrous industries, including copper, copper alloy and aluminium. It can be used within a number of diverse production techniques from; cascade systems, pilger mills, high speed spinner blocks to draw benches and Schumag machines. Cetodraw is synonymous with high quality tube production. Cetodraw will meet the most stringent International Standards required of engineering, sanitation, air conditioning and refrigeration tubing (ACR).

**Superior lubrication:** enhanced tube surface quality, longevity of tool life and a reduction in drawing forces can all be achieved.

**Improved productivity:** the need to degrease is eliminated reducing the number of processing stages required. All grades in the range therefore ensure bright anneal characteristics balanced to drawing capability.

**Reduced carbon deposits:** Cetodraw lubricants have been formulated to reduce carbon deposits to meet the most stringent quality specifications. Ultra low carbon forming deposits can further be achieved with selected grades.

**Efficient production:** integrating Cetodraw lubricants can lead to a reduction in the amount of lubricant consumed when applied by metered application techniques. This ensures that a lower volume of fresh lubricant is dispensed to the drawing tools compared with re-circulation methods.

**Optimum performance:** the lubricant film strength of the high viscosity Cetodraw grades allows for multiple draws, eliminating the need for reapplication of additional lubricant.

**Excellent H&S characteristics:** superior low fume characteristics under high speed, high load drawing conditions ensures excellent Health and Safety benefits.

## Copper Wire Drawing Fluids - Mastersol

Mastersol is suitable for use in the production of plain copper, tinned copper, enamelled and coated wires. Products cover a number of applications including rod breakdown, intermediate, fine and superfine wire drawing of single wire, multi-wire drawing, twin wire rod, in-line enamelling and coating techniques.

**Enhanced surface finish:** Mastersol products provide outstanding wire surface quality and protection against wear to commonly used material including diamond, synthetic diamond, ceramic and tungsten carbide.

**Extensive application:** suitable for use in the production of all grades of copper alloy wire.

**Improved production efficiency:** the longevity of the emulsion life reduces machine downtime cutting related costs and so improving production efficiency.

**Excellent machine and wire cleanliness:** excellent detergency characteristics lessen the build up of sticky deposit, reducing problems associated with tension breaks. Mastersol grades are compatible with most modern fine filtration methods.

**Mastersol C6 C8:** Suitable for rod breakdown through to intermediate wire sizes.

**Mastersol C21:** ideally suited for the production of enamelled wires using either the two stage or in-line draw-enamel techniques, C21 can also be used for multi-wire drawing.

**Mastersol C32:** manufactures using biostable technology, C32 is a very versatile product ideal for multi-wire drawing and single wire machine.

**Mastersol 1027:** 1027 represents the next generation of semi-synthetic biostable multi-wire drawing lubricant.

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## Aluminium Wire Drawing Fluids - Batral

Batral products are capable of drawing pure aluminium and the hard alloys of aluminium with, magnesium, lithium or silicon. With expert knowledge and the extensive Batral product range, FUCHS can recommend the most appropriate grade to manufacture the complete matrix of metallurgy and wire sizes.

**Extended lubricant life:** Batral lubricants are manufactured to a lower viscosity than conventional counterparts resulting in enhanced cooling, flushing and fines separation. Sophisticated additive systems further enhance oxidation stability and minimise thickening leading to extended lubricant life.

**Excellent wire surface quality:** bright anneal characteristics ensure a clean and quality surface finish to the final wire.

**Highly compatible:** Batral products can be applied to all commonly used die materials such as diamond and synthetic diamond.

**Superior wear protection:** enhanced levels of lubricity ensure a superior level of wear protection to dies and capstans.

**Bespoke grades available:** fully synthetic versions of the Batral range are available and are particularly suited to the toughest alloy draws on hard alloys.

**Batral A1:** an ultra low viscosity lubricant suited to the production of fine wires, Batral A12 ensures superior surface finish and wire cleanliness.

**Batral A2:** for use with pure aluminium and alloys, Batral A2 is ideal in the production of intermediate to fine wire sizes.

**Batral A5, A6:** commonly used with pure aluminium and its alloys, these grades are highly suited to the production of rod and intermediate wire size.

**Batral A10:** specially formulated for the production of soft aluminium. Batral A10 has been developed with enhanced lubricity characteristics to eliminate scoring and scuffing issues.

**Batral 2000:** Batral 2000 is based on a fully synthetic formulation specifically designed for producing the toughest alloys utilising a minimum volume of lubricant. Variants in viscosity can be formulated to allow for individual die box lubrication or lubrication via recirculation systems.

## Rolling, Forming & Ancillary Products

Additionally, FUCHS manufactures a range of rolling oils, forming lubricants and ancillary products.

**Masterroll:** from high to low viscosity, water miscible and neat oil formulations, Masterroll offers a comprehensive range of lubricants suitable for numerous applications, such as roll and draw applications for the production of profiles.

**Masterform:** Masterform is a versatile neat oil formulated product range developed to operate in a number of applications including ferrous wire drawing.

