

# The new era in aluminium wire drawing – the BECHEM Unopol AL series

The wire drawing lubricants of the **BECHEM Unopol** series have long been recognized as a worldwide leading brand in the demanding wire drawing business. Their excellent drawing performance and service life satisfy wire manufacturers all over the world. The continuous development and research of BECHEM guarantees the best results in quality and productivity in modern wire drawing.

Aluminium is replacing copper conductors in more and more applications. The abundance of aluminum makes it cheaper than copper, and the significantly lower weight provides advantages for not needed lightweight construction, e.g. in the automotive industry.

Traditionally, aluminium wires are drawn with oil. Especially in rod breakdown processes, relatively high-viscosity oils have been the state of the art for a long time. The use of such oils leads, however, to a contamination of machines and surroundings; since filtration of the used oil is only possible to a limited extent, processing residues and oil will stick on the wire surface.

The use of emulsions offers various advantages:

- Improved cooling
- Faster processing
- Easy wash off
- Low formation of residues
- Clean surroundings

The above benefits prove that emulsions are the best choice for enamelled wire production. Thanks to the intensive development work over the last years BECHEM has created the **BECHEM Unopol AL** series; the wire drawing lubricants of this series cover even the most demanding rod wire drawing operations.

In general, each aluminium wire drawing machine which is currently operated with oil can be adjusted to this new technology. Even copper wire drawing machines can be changed for the drawing of aluminium wires. BECHEM will support you when introducing this new technology in your plant.



With the introduction of the **BECHEM Unopol AL** series in aluminium wire drawing, traditional theories could be disproved. Less oil residues, best lubrication and a considerably cooler wire guarantees extraordinary drawing performance, as well as system-dependent higher drawing speeds; less wire breaks and better efficiency of the machines are the result.

## BECHEM Unopol AL 560

BECHEM Unopol AL 560 is a water miscible lubricant for drawing aluminium in rod and medium wire systems, which offers best lubrication properties and is suitable for drawing EC-aluminium as well as most different aluminium alloys.

BECHEM Unopol AL 560 shows good foaming behavior even in soft water. Excellent cooling abilities and filterability ensure an outstanding performance in high demanding aluminium wire drawing processes. As the surface of the drawn wire is very clean, BECHEM Unopol AL 560 is also used for the production of enamelled wire.

Diameters from 12 mm or 9.5 mm down to 2 mm are processed with BECHEM Unopol AL 560 in concentrations of 10–25 %. Here the usual service concentrations range from 8 to 12 %, depending on the starting and final diameter.



## BECHEM Unopol AL 570

BECHEM Unopol AL 570 is a water miscible lubricant for drawing aluminium in medium and fine wire systems. Starting from 3.5 mm, final diameters down to 0.10 mm are drawn on single and multiwire machines with BECHEM Unopol AL 570.

This quality combines good lubricity and cleanliness of the wire and the machine. Good filterability and low residues ensure a long service life and high wire quality. BECHEM Unopol AL 570 is applied in concentrations of 10–20 % depending on the application.