

Press Release

March 17, 2014

Henkel at “Wire” and “Tube” in Düsseldorf

Adding value with sustainable solutions

A global leader in adhesives, sealants and functional coatings, Henkel offers sustainable solutions for a broad spectrum of applications including the manufacture of wire, cable and tubular products. In the development of innovative surface treatment technologies, Henkel focuses particularly on the aspects of sustainability and reducing process complexity. The major world trade fairs “Wire” and “Tube,” due to take place in Düsseldorf from April 7 to 11, offer an ideal platform for showcasing the company’s latest product developments and future-shaping trends encompassing the wire, cable and tube industries.

With an extensive product portfolio comprising cleaners, lubricants and functional coatings extending across the entire metal forming value chain, Henkel is able to offer comprehensive solutions for a wide range of solid deformation processes. Aligned, for example, to longer tool and bath lifetimes, with users therefore coming into less contact with chemicals, Henkel’s products also serve to enhance operating safety and ecological acceptability. Thanks to this focus on environmental compatibility and occupational health and safety in combination with ongoing simplification of production processes, Henkel enables its customers to consistently generate more value in the manufacture of wire and tube.

Reducing complexity for efficient production processes

The Bonderite L-FM product series, also known in the market as Bonderlube L-FM, is always the right choice for certain subprocesses within solid metal forming sequences, including the surface treatment of wire and cable. With its patented technology, the range replaces conventional zinc phosphating and eliminates the need for further lubricants. Fewer process steps are required compared to traditional



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coating technologies, thus significantly reducing manufacturing cost. Aside from the repeated rinsing cycles that are usually required between degreasing and pickling, this innovative line also removes the need for activation, neutralization, phosphating and the subsequent soaping stage. For the same reason and because the coating process no longer gives rise to phosphate sludge, the amount of effluent produced is also significantly reduced. With this Henkel technology, the forming operation is now preceded by just four process stages to create a conversion coating on the metal surface: abrasive blasting, rinsing with water, application of Bonderite L-FM lubricant, and drying. This technology has already been proven across the industry as a means of ensuring consistent, high quality in manufactured products. Customers also benefit hugely from the improved lubrication performance of Bonderite L-FM through the significant extension to tool lifetimes that it brings, resulting in lower plant and equipment maintenance costs.

As with all Henkel lubricants, the Bonderite L-FM product line is the subject of ongoing development work aimed *inter alia* at further enhancing both environmental compatibility and occupational health and safety. The latest advancement is also characterized by improved lubrication performance and stability, coupled with the removal of boron from the formulation. Judging by the initial feedback from customers, this innovative step change offers key benefits over the performance of products conventionally employed – against the backdrop of an ever more demanding market.

At the focus of Henkel's trade show presentation on the tube manufacturing side is the Bonderite L-FG range of graphite-based lubricants for hot forming applications – products capable of withstanding the toughest conditions while delivering optimum tribological performance and tool protection in tube rolling. By preventing direct metal-on-metal contact even under high forming loads, the lubricants ensure exceptional quality of inside surface finish combined with extended tool lifespans. Henkel prides itself on its ability to supply tailor-made dispersions, which means products formulated with the optimum ingredients right from the start in order to ensure maximum lubrication. This greatly reduces the rolling energy input required, with the resultant power savings bringing both cost advantages for the customer and improved environmental protection.

Compared to graphite lubricants in powder form, moreover, the dispersions from Henkel offer particular benefits in terms of their performance under very high temperatures and/or in lengthy production processes. Aside from a controllable particle size distribution in the dispersion, the uniform wetting film and effective protection of the graphite against oxidation are key advantages of this technology.

Finally, Henkel has also once again proven its innovative strength on the temperature resistance front: Bonderite L-FG FT 425 can be used across a comparatively wide temperature range (up to 1,200 degrees Celsius) and therefore, through its enhanced wetting ability, is able to promote a more continuous, smoother process sequence.

Bonderite is a registered trademark of Henkel and/or its affiliates in Germany and elsewhere.

Henkel operates worldwide with leading brands and technologies in three business areas: Laundry & Home Care, Beauty Care and Adhesive Technologies. Founded in 1876, Henkel holds globally leading market positions both in the consumer and industrial businesses with well-known brands such as Persil, Schwarzkopf and Loctite. Henkel employs about 47,000 people and reported sales of 16.4 billion euros and adjusted operating profit of 2.5 billion euros in fiscal 2013. Henkel's preferred shares are listed in the German stock index DAX.

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