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Materion Corporation — Ready for What's Next in Electronics with New High-Performance Alloy Products

Company invests in manufacturing upgrades to produce alloys for next-generation electronics

MAYFIELD HEIGHTS, Ohio--(BUSINESS WIRE)-- As the consumer electronics industry works to develop smaller, lighter devices that perform better and have ever-increasing capabilities, engineers need materials that enable — and even enhance — their next-generation designs. Materion Brush Performance Alloys, a Materion Corporation (NYSE:MTRN) business, is focused on meeting emerging electronics needs, and recently developed three new products for its BrushForm®158 product line (BF TM12, BF TM04 and BF TM06) specifically for next-generation electronics devices.

These new copper-nickel-tin alloys are designed to provide optimal strength in very thin gauges, making them ideal for use in devices such as smartphones, tablets and cameras.

The alloys offer higher strength than other copper alloys, but do not contain beryllium, so can be used when a beryllium-free alloy is desired. The materials are RoHS compliant and infinitely recyclable.

BrushForm®158 TM12 offers higher strength in thinner foil gauges

As electronic devices become smaller, design engineers face greater challenges to package new technologies and capabilities with less space for components. Designed specifically to meet increased strength requirements for voice coil motor and optical image stabilizing applications in smartphones, BF158 TM12 offers substantially higher strength in foil gauges as thin as .001" (.025 mm), which means greater design flexibility.

The alloy out performs copper beryllium and copper titanium in applications with high strength/high temperature requirements — and has good corrosion resistance which is becoming increasingly important as companies develop water-resistant devices.

BrushForm TM04 and TM06 offers optimal high strength/formability combination

BF TM04 and TM06 have been designed to provide optimal formability, as well as high strength, in spring applications and signal connectors. These new materials are ideal for complicated designs that require better formability. They perform better in higher temperature applications, and resist corrosion better than other copper alloys. TM04 and TM06 are ideal replacements for copper titanium.

Equipment and process upgrades

Materion invested \$1.6 million in process and equipment upgrades at its Reading, Pennsylvania facility to develop the new BrushForm products.

In addition to rolling copper-based alloys to a thickness of less than .001" (.025mm), the upgrades will net thickness tolerance improvements of up to 50 percent, especially in the thinner gauge strip products +1 to .000060 (+1 to .0015mm).

"We are constantly looking ahead to align our product and service portfolios with the latest market and technology trends, so that we are able to provide our customers with an even broader scope of products and services," states Jason Maher, Marketing Director for Strip, Rod and Wire at Materion Brush Performance Alloys. "Adding these new forms to our BrushForm family of alloys will enable design engineers to go even further in their push to meet consumer demands for smaller, better devices."

Materion Brush Performance Alloys, headquartered in Mayfield Heights, Ohio, is a unit of Materion Brush Inc., a wholly owned subsidiary of Materion Corporation. Through its subsidiaries, Materion supplies worldwide markets with alloy products, beryllium products, electronic products, precious metal products, and engineered material systems. Around the world, the company's engineered materials can be found in technically demanding end-use products within the telecommunications and computer, automotive electronics, appliance, industrial components, plastics tooling, optical media, oil and gas, aerospace and defense,

and off-highway and mining equipment markets. Visit www.Materion.com for additional information.

Materion Brush Performance Alloys
Karen Ducatman, Manager, Marketing Communications, 216-383-4090
<http://www.materion.com>
Mayfield Hts-g

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