

Introducing MoldMAX® Forged Rings for Injection Molds

Brush Wellman Inc. introduces MoldMAX®, a high strength – high conductivity copper-based mold and tooling alloy, in the shape of forged rings for the plastics market.

“Historically, mold makers were required to purchase rings that had been cut from plates, resulting in high percentages of wasted plate and increased expense,” said Doug Veitch, Brush Wellman’s Director of Plastics Tooling.

Brush Wellman now offers forged rings that provide all the benefits of MoldMAX in a convenient shape to meet the needs of manufacturers of pails and other circular parts and containers. Unlike cast rings, MoldMAX forged rings are of the superior quality synonymous with all MoldMAX products and are able to withstand the demands of high volume production.

The forged MoldMAX rings are available in standard sizes with custom sizes available upon request.

Brush Wellman is committed to bringing high thermal conductivity and uniform cooling to the plastics market. The characteristics of Brush Wellman’s mold alloys have reduced part costs substantially and produced more efficient manufacturing processes for the company’s customers. On average the cost differential of tool steel to MoldMAX is recovered in cost reductions within the first three months of production. ■



MoldMAX forged rings are available in standard or custom sizes

PRODUCT	ROCKWELL HARDNESS (HRC)	THERMAL CONDUCTIVITY (BTU/ft.hr.F)	YIELD STRENGTH (ksi)	TENSILE STRENGTH (ksi)	EXPANSION COEFFICIENT (10 ⁻⁶ /F)
MoldMAX HH®	40	60	155	185	9.7
MoldMAX LH®	30	75	140	170	9.7
P-20 Tool Steel	30	17	120	140	7.1

Announcing MoldMAX SC® Mold Alloy for Blow Molding and Hot Runner Systems



MoldMAX SC® is a high strength – high conductivity copper beryllium alloy with a hardness of 20 Rc that is typically used for blow molding and hot runner systems.

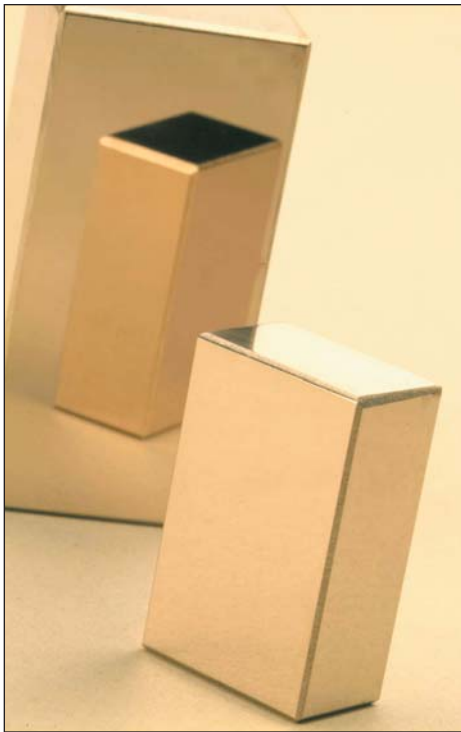
MoldMAX SC provides the highest thermal conductivity available in a mold material, ten times that of steel and twice that of

aluminum. MoldMAX SC’s strength and hardness also exceed that of aluminum. It is designed for applications where maximum heat removal or control is required.

“The name MoldMAX SC signifies the alloy’s most important attribute, its Super Conductivity,” said Doug Veitch, Brush

Wellman’s Director of Plastics Tooling. “Additionally, in keeping true to form, the characteristics of MoldMAX SC, like the entire family of MoldMAX alloys, have proven successful in providing significant advantages including faster cycles, improved part quality, better parting line

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MoldMAX SC

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maintenance and excellent corrosion resistance." Veitch adds that MoldMAX SC is also readily machinable and readily weld repaired. ■

Brush Wellman's MoldMAX family of mold and tooling alloys now consists of:

MoldMAX HH®

Alloy: Copper Beryllium

Typical Applications: Injection & blow molds

MoldMAX LH®

Alloy: Copper Beryllium

Typical Applications: Injection & blow molds

MoldMAX XL®

Alloy: Copper Nickel Tin

Typical Applications: Injection molds

NEW: MoldMAX SC®

Alloy: Copper Beryllium

Typical Applications: Injection & blow molds, hot runner systems

MEET YOUR BRUSH WELLMAN PLASTICS TEAM MEMBER

Profiled: Andrea Castelli

Andrea Castelli, Brush Wellman Regional Market Manager based in Italy, has been with the company for 5 years. Andrea's primary responsibility is growing the Brush Wellman plastics tooling business throughout the Southern European countries, including Scandinavia and the Middle East, while supporting the Far East countries.

Prior to joining Brush Wellman, Andrea was with Lucchini as a Manager in the tool steel division where he provided technical and marketing support of forged tool steel for heavy molds in the automotive industry. Earlier in his career,

Andrea worked for Uddeholm Italy in their technical office focusing on tool steel for the plastics market. In this position he also provided technical and marketing support for MoldMAX® products throughout Italy.

Andrea graduated in the Technical and Metallurgical High School in Milan, Italy.



Andrea Castelli

Events

Doug Veitch, Brush Wellman Marketing Director of Industrial and Bulk Products, spoke on the **ECONOMICS OF HIGH CONDUCTIVITY MOLDS** at the **MoldMaking Expo**, April 25-26, 2006 in Novi, MI. Doug's presentation covered cycle time reductions, machinability and durability of molds using high performance copper alloys. Application examples were used to demonstrate actual payback calculations, cycle time reductions and

improved part quality. The types of plastics that are compatible for molding on tools made with high conductivity copper alloys were also discussed.

June 19-23, 2006: NPE in Chicago, IL—

Visit Brush Wellman at booth 9310 to learn about our full line of MoldMAX mold & tooling alloys or visit www.MoldMAX.com



Brush Wellman Celebrates 75 Years!

1931-2006

"Brush Ups" on Mold Alloys is a publication developed to keep you informed of advancements and trends not only in the plastics industry, but also within Brush Wellman's plastics segment of the Alloy Products group. Look for *Brush Ups* on a quarterly basis.

MoldMAX® - Mold Alloys

Providing Thermal Management Solutions

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