September is a time of renewed planning, commitment and getting…

back in the flow with Belmont

Belmont METALS INC.

Time to get the lead out!

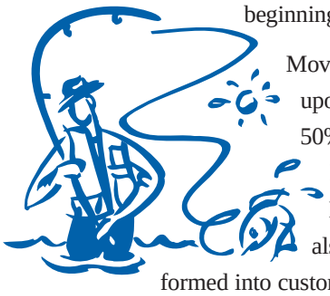
The rejuvenating hint of autumn in the air has picked up the pace of business. September is always a time of new challenges and increased customer demand. Belmont helps you get back in the flow with the widest variety of non ferrous metals and alloys in the shapes you need. Whether it's fitting an existing application to your special requirements, or designing a customized solution, Belmont works with you to quickly and cost-effectively deliver the quality and consistency you and your customers demand.

Bismuth

Feature Metal

Bismuth. Not a household name, you might think. Yet Bismuth has thousands of applications in areas such as manufacturing, the medical industry, and the home. Its unique ability to expand as it cools (3.32% on solidifying), coupled with the ability to form low-melting alloys (as low as 117°F), makes it ideal for many useful applications, including environmentally-sound alternatives to lead and lead alloys.

Consider lead-based fishing lures and the countless broken lines that result in these settling in our fresh-water streams. The equally effective, yet non-toxic, Bismuth alloy lure can make us — not to mention the fish — a lot happier about water quality. Similarly, Bismuth alloy shot is beginning to replace lead in shotgun shells.



Moving from recreational uses to the medical field, Bismuth is making an impact upon the health care and pharmaceutical industries, which account for more than 50% of the Bismuth consumed in the United States. An example of large tonnage Bismuth alloy use is in radiation therapy shielding. To replace lead shielding, Belmont developed a special line of RT (Radiation Therapy) alloys and now also offers cadmium-free alloys. These low-melting alloys (as low as 158°F) are formed into custom-shaped shielding blocks for each patient using a simple double-boiler, thereby avoiding the danger of pure lead's high melting point and toxicity.

In manufacturing, Bismuth's expansion properties and machinability are perfect for holding jet engine turbine blades during machining, as well as for forming temporary chucks to hold odd-shaped pieces. It is an excellent substitute for lead as a heat-transfer medium, protecting the melting pot from zinc's corrosive effects during the galvanizing process. Where lead cannot be totally eliminated (in tempering baths for steel wire, tools, etc.), Bismuth is added to lower the temperature, thus reducing lead fume.

Also, Bismuth is added to Lead, Tin, and Solder alloys to make them more lustrous, easier to cast, and to lower the melting point. And for home applications, the Brass industry is testing several Bismuth and Bismuth-Selenium Brasses to replace Leaded Brasses, particularly in plumbing fixtures. Bismuth's low melting point is also ideal to trigger automatic fire doors and sprinkler systems.

After all that, if you still think Bismuth is not a household name, think again. Besides its widespread use in cosmetics, Bismuth is the essential ingredient in the medicine-cabinet staple that cares for our upset stomachs — that's right, Bismuth puts the "Bismol" into Pepto-Bismol®! What a versatile metal: it helps get planes off the ground, cure disease, catch fish without polluting the waters…and even helps calm a queasy tummy. Surely there is a business need that Bismuth can fill for you!

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