Zinc Aluminum 12

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Zinc-Aluminum Alloys 8, 12 and 27 comprise a new family of zinc casting alloys that have proven themselves in a wide variety of demanding applications. They are engineering materials well suited to applications requiring high as-cast strength, hardness and wear resistance. They offer designers and casting specifiers viable, cost-effective alternatives for their component requirements.

My poster will demonstrate the many uses of Zinc Aluminum alloys and compare this new alloy with other common metals and alloys.

I will start off with a phase diagram of Zinc Aluminum. I will then have a chart on the tensile properties of three binary Zn-Al alloys as a function of copper content and a chart on the effect of aluminum content on the tensile properties of Zn-Al and Zn-Al-Cu alloys.

I will have a diagram of the tensile properties of a binary An-27% Al alloy as a function on magnesium additions and a graph on the effect of magnesium content on the tensile properties of the An-27% Al alloy containing 1, 2, and 3% copper.

On the poster, there will be a table on the compositional range of zinc gravity casting alloys.

I will also have, on the poster, graphical images of the grain structure of zinc aluminum and pictures of many products that zinc aluminum is best used for.

This poster will demonstrate that this new alloy is a better alternative to other alloys previously used.