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Magnesium Paper Abstract

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**Title: Magnesium Alloys in Aerospace Applications, Past Concerns,
Current Solutions**

Magnesium alloys being 1/3 lighter than aluminum have obvious appeal in aircraft applications. The history of magnesium alloys employed in aerospace is one of many successes but also some problems associated with the metal's susceptibility to corrosion. And there is the perceived fear of fire. The magnesium industry took on the corrosion problem 25 years ago, developing high purity and alloy driven corrosion resistant alloys, improved surface protection schemes and design techniques. Magnesium as a result has seen a resurgence of interest and strong growth in automotive applications. Many new and current aerospace applications have also taken advantage of these corrosion resistant alloys and processes. Although less of a reality, the fear of fire remains a concern. More information on the burning characteristics of magnesium is needed to assuage this perception. This paper reviews Mg applications in past and current applications, corrosion matters and prevention, and finally current programs and findings in the field of magnesium fire testing.