Aluminum and Aluminum Alloys

Aluminum alloys display a good combination of strength and ductility. Aluminum alloys are among the easiest of all metals to cast, form, and weld. Such lightweight materials are a primary factor in the use of aluminum alloys in automotive applications. Other factors that contribute to the use of aluminum alloys include their high corrosion resistance, low density, and high electrical and thermal conductivity. The wide range of aluminum alloys and their characteristics allow them to be used in a large variety of applications, including aerospace, automotive, construction, and consumer goods.

Aluminum Alloys - ASM Handbook

Introduction to Aluminum and Aluminum Alloys | Metals Design

Aluminum and its alloys are used in a broad range of applications. This article discusses the primary and secondary production of aluminum and the classification system for cast and wrought products. It describes some of the more common manufactured forms, including commercial wrought aluminum products, aluminum alloy engineered castings, powder metal parts, and metal-matrix composites.

Aluminum and Its Alloys | ASM International

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Weldability of Aluminum Alloys | ASM International

Weldability is a function of three major factors: base material quality, welding process, and design. This article ... property degradation in both the weld region and heat-affected zone, weld porosity, and susceptibility to solidification cracking and liquation cracking.

Aluminum and Its Alloys Self-Study Course - ASM International

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ASM Specialty Handbook: Aluminum and Aluminum Alloys

This one-stop reference is a tremendous value and time saver for engineers, designers and researchers. Emerging technologies, including aluminum metal-matrix composites, are combined with all the essential aluminum information from the ASM Handbook series (with updated statistical information). What people are saying - Write a review

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