

Method of Accelerating the Solution Heat Treatment and Aging Kinetics of Aluminum Alloys

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Technology Summary

ORNL worked with Eck Industries, Inc. to compare the heat treatment response of cast aluminum alloy A206 when processed in a magnetic field with that of a conventional heat treatment. Alloys treated using high magnetic field processing demonstrated reduction in heat treatment times from fourteen hours to four hours with mechanical properties equal to, or better than the conventionally processed alloys. These results show that high magnetic field processing can reduce the time, cost and energy intensity of heat treatments in aluminum casting.

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