

Innovative magnesium sheet production process licensed

June 6 2005

CSIRO has signed an exclusive option to license its magnesium sheet production process with Magnesium International Limited's subsidiary Magnesium International (No 1) Pty Ltd.

The CSIRO technology is one of only a few technologies capable of producing thin magnesium sheet direct from the molten metal.

Under the new agreement, Magnesium International will work with CSIRO on further advancing the technology.

The magnesium sheet technology has emanated from four years of work by research scientists and engineers at the CSIRO Manufacturing and Infrastructure Technology Division.

While magnesium sheet is considered a growth product for the 21st century - with its light-weight and high-strength qualities - the uptake of magnesium sheet has been hindered by expensive and difficult conventional production processes.

“After successful test runs we are about to commence a production trial run of high-end 3mm magnesium alloy sheet for a potential customer,” says CSIRO Business Development Manager Brad Cowley.

“This shows the CSIRO production method can make a cost-effective magnesium sheet of the highest standard; Magnesium International is looking to engage with this company on a commercial basis. Our technology has the scope to allow many more manufacturers

to enter the magnesium sheet market.â€? says Mr Cowley.

Magnesium International Limited Deputy Chairman, Patrick Elliott, says while there are numerous groups working on producing magnesium sheet metal, CSIRO is ahead of the pack.

â€œWe believe CSIRO's technology is in the lead and that its technology has the best potential,â€? says Mr Elliott.

Mr Elliot says initial trials with CSIRO have gone well and he expects orders to flow shortly.

Magnesium sheet has a variety of applications where light weight and quality finish is at a premium. This includes automotive components and personal electronic devices such as cameras, XDAs, lap tops and MD players.

The CSIRO technology is based on the successful application of the twin roll casting technique - used extensively in the aluminium industry - to the production of magnesium alloy sheet. Magnesium alloy strip can be produced directly from the melt with a thickness at - or close to - the final required shape, thereby reducing operational costs. A detailed proving program has demonstrated that the technology is economically efficient and suitable for semi-continuous production of 100-200kg coils of typically 3mm thick magnesium sheet.

Source: CSIRO

Citation: Innovative magnesium sheet production process licensed (2005, June 6) retrieved 23 April 2024 from <https://phys.org/news/2005-06-magnesium-sheet-production.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.