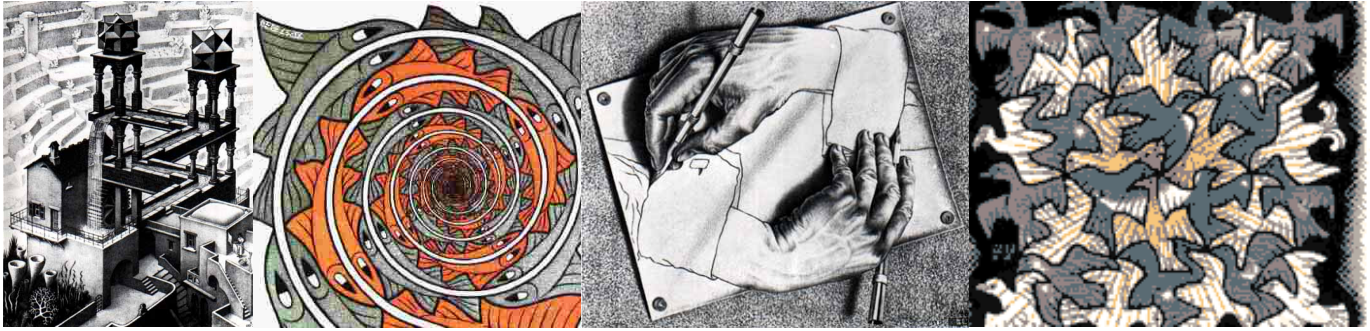


Technology Strategy Consultants (tsc) aim to promote thinking and innovation within the aluminium industry.

During the course of our research we often encounter items of interest to the world of semi-fabricated aluminium products which, on their own, may seem insignificant but, when added together, could be seen as a step-change in their field of technology.



Pre-coated Beverage Can Sheet

Back in the late 1980s, Metal Box, now part of Crown Cork and Seal, invented a laminated coating which could survive the wall ironing process used in the fabrication of beverage cans. Since then, lacquers have been developed to achieve the same aim, meaning that it is entirely feasible to produce cans from pre-coated aluminium sheet. It could be desirable for canners to use pre-coated can sheet because it is more environmentally-friendly, and has better formability than bare sheet.

Can sheet today

This is a major issue for the current suppliers of can sheet. Today's coating technology is extremely slow, compared to the speed of cold rolling. This means that the aluminium rolling industry would have to invest in large numbers of coating lines to supply this product, and they are loathe to do this for the scale of the existing beverage can market.

There may be another issue which is less widely understood. The production standards of can sheet have developed over the years, so that now critical processing is required in order to achieve world class quality levels of the metallurgy and surface condition of the sheet. This is best achieved in large rolling facilities using multi-stand tandem mills, which represent huge investments.



A coated product would divorce the surface from the metallurgy, and therefore make high quality can sheet something many more companies could produce. Clearly, this is not seen to be desirable by the large companies currently supplying this market.

Even more alarming for the existing suppliers, the metallurgical requirements of can sheet may well be met by a continuously cast product.

Pre-coated Beverage Can Sheet (continued)

A new opportunity?

None of this matters if the target market is the massive, existing beverage can industry, since the enormous cost of coating line investment would stop it happening. What is needed is a new vehicle to develop the coated product which could be seen as a more attractive package for the end user.

PET bottles are attractive and re-sealable and a virtual necessity for any street-wise teenager out with friends. The aluminium bottle can could meet all these needs and be truly recyclable. Aluminium bottle cans are becoming popular, and they are considered "cool". Interestingly, some types of aluminium bottle cans are being made from pre-coated can sheet.

The aluminium bottle can is a rapidly growing market, especially in the Far East, and may soon invade Europe and the USA. So what would happen if its needs could be met by continuously cast, pre-coated can sheet? And if that product really took off, as some are predicting, could the bottle can be the vehicle to make pre-coated can stock a thing of the future, rather than a relic of the past?

One final point – nobody has yet made a steel bottle can to compete ...

It makes you think, doesn't it?



This "what if" scenario has been brought to you by **tsc**, to help relieve us of the here and now, and promote thinking and innovation within the industry.

tsc was formed in 2004 by Paul Evans and Ricky Ricks, former research directors for Alcan Rolled Products. We assist clients to develop all aspects of their technology strategy, including:

Knowledge Management

Competitive Intelligence

Project Management

Technology Support in Materials Science and Surface Critical Products

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