RECOVINYL news

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WELCOME to the latest edition of the Recovinyl Newsletter Extra. This issue includes Axion's new calculations which reveal the CO_2 savings made by using recyled PVC and a focus on CMS Enviro Systems, a company demonstrating its commitment to sustainability.

RECYCLED PVC CUTS ENVIRONMENTAL IMPACT

According to new calculations by Axion Recycling, manufacturing new building products from recycled PVC-U has about 6% of the global warming impact of using virgin polymer – offering significant environmental and raw material cost-saving benefits and strengthening the argument for greater use of recyclate in new items, such as PVC-U window and door profiles.

"An added benefit is that manufacturers can develop products to attract 'eco-conscious' consumers, as well as save on escalating raw material costs given the current record oil prices," says Roger Morton, Axion's Commercial Director.

Axion came to its conclusion on the global warming impact of collecting and recycling end-of-life PVC using updated information from DEFRA on CO_2 emissions and data on power consumption and other energy uses at a typical UK PVC recycling facility.

Collecting and mechanically recycling one tonne of recovered PVC, which can directly substitute virgin polymer in a new application, will generate about 120 kg CO_2 per tonne of PVC recycled. The latest eco-profile data from Plastics Europe for virgin PVC indicates that producing one tonne of virgin PVC from its primary raw materials (salt and oil) will generate about 1,900 kg of CO_2 emissions. Using the recycled PVC chip therefore creates a 94% saving in CO_2 emissions compared to production of virgin PVC polymer.

Most recycled PVC can be re-used as a clean chip to substitute virgin polymer so there are fewer melting costs. This helps to reduce the carbon impact of the recycled material compared to virgin.

The 40,000 tonnes of end of life PVC that were recycled through Recovinyl in the UK during 2007 will have saved up to 71,000 tonnes of CO2 emissions because the majority of this material will have been used in applications that directly substitute virgin polymer.

Roger says the carbon credentials of even virgin PVC are better than for other polymer types. "The carbon impact of making new PVC-U is lower than for other types of polymer because it is made partly from salt and partly from oil. Most other polymer types are made entirely from oil. Another advantage is that PVC is a long-life material that can be recycled up to ten times without any loss in performance, making it ideal for use in new building products such as window and door profiles, fascias and soffits.

"The technology exists to produce building products made from 100% recycled PVC-U, allowing the UK construction industry to demonstrate a truly sustainable way forward," adds Roger.

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Axion - *Innovation in recycling*

Recycler Focus: CMS Enviro Systems Ltd

CMS Enviro Systems Ltd would like to invite you to find out more about its innovative product range and its commitment to sustainability. To celebrate its unique product range and showcase ideas for the reduction of its carbon footprint, CMS are holding an Innovation Day at their factory site in Cumbernauld, near Glasgow, on 6th June.

A window manufacturer and installer, CMS has a 50,000 sq ft site in Cumbernauld. It has gained contracts with many local councils and social housing projects and counts several house builders as customers. CMS has a product range that includes PVC, aluminium and timber with aluminium. The company has been awarded the ISO 9001 quality award for the manufacture, supply and installation of both PVC and aluminium windows and door systems.

CMS is one of the first companies to use organically stabilised lead-free profiles and their PVC frames are thermally efficient with impressive U values. It has a team of in-house designers who can produce technical drawings – unusual for a window manufacturer. Their aluminium and PVC product range will be awarded 'Secure by Design' certificates - a flagship security initiative operated by the British Police Force, at its Innovation Day in June.

It was CMS's commitment to protecting the environment that lead to the company becoming involved with Recovinyl. As Martin McCrimmon, Communication and IT Manager, explains: " We were already recycling all our off-cuts and excess manufacturing materials but we wanted to do more. We looked at the windows we were replacing and realised that all the old windows were going to landfill. We set up a pilot scheme with two major customers, Fife Council and East Dunbartonshire Council, with the aim of recycling the old frames. The pilot scheme was very successful and we managed to recycle over 95% of the extracted components."

Following this feasibility study, CMS undertook to recycle all the old windows that it replaces, whatever material they are made from. The company deglazes and deconstructs the windows, sending the glass, ironmongery, aluminium and PVC for recycling. The PVC is sent to Dekura for processing. As Martin explains: "Recovinyl helped us to get this off the ground, providing us with contacts and helping to generate ideas. It has enabled us to build a relationship with Dekura and we have had a number of enquiries as a result of being registered with Recovinyl."

The company has plans to extend its recycling activities by becoming a Scottish 'staging area', allowing other companies to drop off their post-consumer PVC windows for recycling. The company is unlikely to make a profit from offering this service but as Martin notes: "The bottom line is, it keep it out of landfill"

CMS is committed to reducing its own carbon footprint and has been awarded ISO 14001 for its environmental management system. The company has made a number of changes to its daily operations with a view to reducing carbon emissions including:

- Replacing its old oil-powered heating system with a Bio-Mass burner. All excess timber at the site is now burned to provide heating for the factory.
- Installing a new lighting system that automatically switches lights on and off as people enter and leave rooms, and which adjusts lighting according to ambient light levels.
- Making a contribution to the charity 'Seeds for Africa' based on the number of windows manufactured. The charity aims to relieve poverty in Africa by providing seeds, plants, trees, equipment and education. CMS has plans to extend their donations to include trees in the UK.
- Recycling all paper, cardboard, polythene, soft drinks cans in addition to glass, aluminium and PVC from off-cuts and post-consumer frames.
- Reducing the amount of ink used by removing printers from desks and replacing them with one centralised printing facility. The company who leased the machine to CMS plants trees based on the number of copies made.
- Purchasing a skip roller to compact the waste that is sent to landfill, thereby reducing the number of skips required and the amount of space taken up in landfill.
- Investing in machinery to size reduce post-use PVC to minimise 'dead space' in transportation and therefore reducing fuel consumption.

CMS currently recycles all its glass, at a cost to the company. It would like to hear from any glass recycler who would be interested in taking the glass.

CMS's Innovation Day will be held at their Cumbernauld site and begins at 10 am on 6th June. The event is free of charge and will include refreshments. If you would like to attend, please contact :

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CMS ENVIRO SYSTEMS Ltd.