



## High-quality tiles from building waste and recycled material

Over the last 8 years, Julie and Paul Langston have been developing the process and company they call Nexiform, in South Wales. Nexiform is a small business that has developed a cold cured tile for domestic use made from over 80% recycled content. The tile is finished with a custom design to create unique splash backs, shower walls and other similar applications. With a history in hand painted ceramics, which required virgin materials and a great deal of heat (and therefore energy) use, Nexiform came about from Paul and Julie's belief that eco-friendliness and sustainability would be the key to any future business.

*"Over 700 tonnes of recycled materials will be used in the Nexiform tile, which would otherwise have gone to landfill. We envisage over 45 new jobs and expect a substantial increase in turnover. Without the support of REMake this thorough review of the business would not have been possible."*

*Paul Langston - CEO, Nexiform*

the value of €20,000. Consultants are selected on the basis of experience, technical capability, added value and cost, and SMEs have the chance to select the experts themselves. Funding of the scheme comes 50% from the European Regional Development Fund, and 50% from the Welsh government.

**REMake-Recycling and resource efficiency in manufacturing** The REMake project enables manufacturing SMEs to tap into the potential that recycling and resource efficiency can offer in an easy, tailor-made way. With the support of REMake experts, companies can assess their savings potential and can discover in a simple, hands-on manner how material efficiency measures and life-cycle approaches increase their profitability.

### **WRAP-Waste and resources action programme**

In Wales more than €100,000 worth of support has been made available for manufacturing SMEs interested in finding out more about using recycled materials in their products or packaging. Up to 30 Welsh companies were offered the opportunity to apply for expert technical advice to



### Resource efficiency audit

With a REMake voucher of €0,000, Nexiform was able to finalise the first un-fired, energy-free copy of the ceramic tile, made entirely from building waste and recycled material. The business had spent several months trialling and testing the tile, but needed support to finalise the product 'recipe', identify key target markets, and increase production. Firstly, the existing production methods were evaluated and alternatives considered. This was intensive and expert support involved a review of every aspect of the business, including; management structure, product development, marketing, sales, logistics, staffing, training, purchasing & equipment, packaging and production, to ensure the success of this environmentally friendly product.

### Suggested solutions

After reviewing the production process, an action plan was drawn up to ensure that production included the maximum percentage of recycled content possible. The revolutionary process that was devised took waste and recycled materials, and bound them together in a cold cure process. The resulting 'slab' could then be decorated in any style, colour, or fashion, giving a unique, super glossy finished slab that is as attractive as a traditional tile, but with huge improvements in sustainability.

### Increasing profit by saving resources

As a result of REMake's support, Nexiform have been able to develop a unique product; one that is made from 85% recycled materials and created using a low-energy, environmentally friendly production method. The company estimate that 700 tonnes of recycled materials will be used in the production of tiles. The product is 100% recyclable and the business is considering alternative business models to promote a closed-loop recycling system. Nexiform and REMake have created a truly innovative product and process that result in cost, energy and raw material savings. So far the company has created 12 new jobs, but hopes to expand that to 45 in the near future.

#### Contact

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