

Case Study

Vibraglaz

Offers smooth recyclable solution for abrasive finishing



Team work at Vibraglaz results in pioneering recycled glass product.

A collaboration between finishing experts Vibraglaz, Huddersfield University, Glass Technology Services and Recycling Action Yorkshire (RAY) has resulted in the launch of the world's first vibratory de-burring medium made from recycled glass – an innovation that allows manufacturers to improve their environmental performance and cut operating costs.

Vibraglaz has developed a series of de-burring products and compounds under the V-cut and V-com brands, helping the aerospace, automotive and medical equipment industries to achieve high quality surface finishes with the lowest possible environmental impact. Other manufacturers will find V-cut helps to reduce finishing time cycles.

Traditionally de-burring (smoothing and polishing) mediums are made from either ceramics or plastics. Both materials present manufacturers with cost, performance and environmental issues. They require the extraction and long-distance transportation of finite natural resources (china clay and bauxite for ceramics and oil for plastics), are relatively expensive, and at the end of their life are landfilled.

V-cut recycled glass de-burring cones in contrast, use 100% recycled material, are cost effective because raw and recycled materials are sourced in the UK, and at the end of their working life can be recycled back into new V-cut. Steve Vaughan,



general manager of Vibraglaz estimates that V-cut will recycle 1,000 tonnes of waste glass every year in the UK alone.

Materials scientists at Huddersfield University's Centre for Precision Technologies (HUCPT) helped with trials - they and Vibraglaz believe V-cut has the potential to revolutionise surface finishing technology. Dr Philip Harrison, commercial manager of HUCPT explained: "Using glass as a de-burring medium has many advantages over traditional materials. V-cut cones can be made from any colour of glass and by changing the conditions under which they are made Vibraglaz can tailor V-cut to meet very challenging finishing standards."

RAY provided a grant of £35,000 to help Vibraglaz move V-cut off the drawing board and into reality. Ben Stone, RAY project manager for glass said: "This innovation adds to our region's ability to increase recycling rates and cut carbon emissions. We believe Vibraglaz has the potential to bring jobs to our region and establish Yorkshire with a reputation for manufacturing expertise with an environmental cutting edge."

BENEFITS

- Potential to divert at least 1,000 tonnes of glass from landfill every year
- Reduces extraction of primary raw materials used in traditional products
- Reduces greenhouse gas emissions by over 500 tonnes of CO₂ every year
- Demonstrates new technical possibilities for recycled glass
- Offers a sustainable alternative to traditional manufacturing methods
- Costs less to use than traditional ceramic or plastic de-burring cones.



Recycling Action Yorkshire

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