



Polymers from Carpet Recycled with the Rotary Impact Separator

Circular Polymers was formed to supply the chemical recycling industry and other upcycle applications with consistent, high quality polymer made from post-consumer carpet destined for landfill. Circular Polymers’ new facility in Lincoln, California will process 30 million pounds of PET, PP, N6 and N66 carpet per year.



Broadview Group International, located in Cleveland, Ohio, is an engineering consulting firm that has been developing new processes for more than 20 years specifically directed towards the recycling industry. Circular Polymers and BGI joined together in 2018 to commercialize BGI’s Rotary Impact Separator (RIS) technology. This market-disruptive technology has been implemented at Circular Polymers’ facility in Lincoln, California. BGI and Circular Polymers completed an expansion to this plant in 2018, which now has an annual capacity of 30 million pounds.



BROADVIEW GROUP INTERNATIONAL, LLC

Rotary Impact Separation (RIS) Technology:

Previous attempts at recycling carpet have been hampered by issues including high capital and operating costs, low recoveries of polymers in the feed, and the generation of additional waste streams. The BGI patented Rotary Impact Separator (RIS) unit mechanically disassembles the carpet into its primary components: face fiber, backing fiber, and adhesive to create clean, low-ash fibers or polymer pellets. No heat and no chemicals are required – it is strictly a mechanical process.

Key features of the process include:

- RIS technology can recycle all carpet types – PET, N6, N66, PP face fiber
- Recovery of more than 95% of the polymer in the feedstock
- Very low residual ash on recovered polymer
- Capable of separating face fiber from polypropylene fiber backing
- Low capital cost and low operating costs
- No water, chemicals or additional heat required

Contact Information

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Thank you for participating in the 2016 Showcase! Your commitment to plastics recycling is greatly appreciated!

Steve Alexander, APR Executive Director _____

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