

San Diego State University: Polymer Waste Stream Repurposing Project

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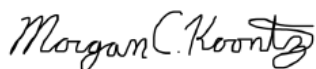
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- A team of engineering students at SDSU is working with Standard Filter Corporations (located in Carlsbad, CA) on finding a way to repurpose or recycle the polymer waste that is produced in the manufacturing of industry filter bags.
- The materials of focus include polyester (PET), polypropylene, and PPS. The largest contributor to that waste and therefore the most important focus in our work is the PET.
- The main goal is to find a way to keep these materials out of landfill at the lowest cost possible.

This project is for my team's capstone course at SDSU in which we will take the next ten months to design and build a solution for the issue at hand. On the west coast there are no regrinding factories for polyester as there are on the east coast and these materials can no longer be sent to these factories. In addition, China, who used to buy the materials, is no longer accepting these materials either. The issue is that there is such a large production of these materials so now there is no solution for getting rid of them besides sending them to landfill.

Our team has been researching the mechanical and chemical properties of polyester, polypropylene, and PPS in search of a solution. We have also been studying the processes necessary to break these materials down so they can be reused, however it appears to be a costly process. While we have ideas on potential solutions, this is a large task for three full-time engineering students which is why we have reached out to the Plastics Recycling Conference.

If you can provide us any assistance, guidance, or information to help us with our project we would greatly appreciate any help we can get. Our deadline to determine a solution for this issue is next Tuesday (March 19th, 2019). Please reach out to me at the contact information located above if there is anything you can do to help. Thank you for your time and consideration.



Morgan Koontz