



Vistamaxx™ performance polymers

Vistamaxx™ performance polymers help A to Z Textile Mills produce attractive, tough, higher value products using recycled plastic

Key benefits:



Compatibilizer

Compatibilize mixed plastics waste stream, eliminating the need for material separation



Impact strength

Improves the impact strength of the recycled plastic



Cost savings

Potential cost savings from elimination of material separation and increased use of recycled content



Unlocks opportunities

Possibility of new revenue stream from products made with recycled plastics

About A to Z Textile Mills

A to Z Textile Mills Limited (A to Z) is a family-owned and -operated business with over 55 years of manufacturing experience, starting out with one sewing machine producing undergarments. Operating from two locations, A to Z employs over 8,500 Tanzanians; 65% of whom are women. Today, A to Z is one of the largest manufacturing companies in East Africa well-known for its production of insecticide-treated mosquito bed nets for the prevention of malaria. The company has diversified in the last 10 years into a wide range of industries including textiles and garments, packaging (PP/raffia cement bags), agricultural products and plastic injection molded household goods. In addition, it owns a state-of-the-art recycling facility that helps to support the local economy and contribute to a circular economy.

Challenge

True to their corporate mission: “To help build a proud and sustainable Africa,” A to Z Textile Mills Ltd of Tanzania collects plastic waste to help achieve their sustainability goals. They have established multiple collection centers for plastic waste in various regions of Tanzania and installed washing lines and three state-of-the-art plastics recycling systems with the capacity to recycle up to 2,000 tons per month of mixed plastics waste.

A lot of the waste they collect is mixed plastic, so they needed to find a solution to process it faster and easily, while enhancing its properties.

“Unmanaged polypropylene (PP) and polyethylene (PE) waste is a problem for many governments which are under increased pressure to act now and help end plastic waste. At A to Z, we want to turn this challenge into an opportunity,” said Viral Shah, Director, A to Z. “Plastic waste contains value that, if handled efficiently, can be transformed into a new revenue stream as well as giving more employment opportunities to Tanzanians.”

Solution

Mixed plastic waste containing PP and PE usually needs to be separated before it can be recycled. To avoid this extra step, A to Z Textile Mills contacted ExxonMobil to find a solution which would allow them to process this incompatible waste. A solution was offered, which involves adding 2–5% of Vistamaxx™ performance polymers to compatibilize the mixed PP and PE waste.

The plastic waste is collected, cleaned, and shredded. Vistamaxx is then added to the hopper where it compatibilizes, and blends with, the mixed PP and PE waste. It is then extruded into new film or molded products.

Vistamaxx performance polymers have been shown to significantly improve the processability and mechanical properties of products when using mixed recycled feeds. Because of a boost in impact resistance, the upgraded recycled streams can be used in higher-end applications at A to Z Textile Mills such as jumbo raffia bags and molded products like chairs, buckets, and bowls.

Results

“Introducing Vistamaxx to compatibilize our PP and PE waste streams has allowed us to unlock new business opportunities. We can now easily recycle mixed plastics waste and improve its properties to create longer lasting products, even though they include recycled material,” said Shah. “While we are helping the industry achieve its sustainability goals, our sales of products that include recycled content have increased. We are now looking to use recycled material in any film or molded application, especially where regulations are the driving force. For example, by 2022, flexible intermediate bulk container (FIBC) bags in Europe need to contain 30% recycled material. As a manufacturer of FIBCs, we are certain this solution can help,” he added.

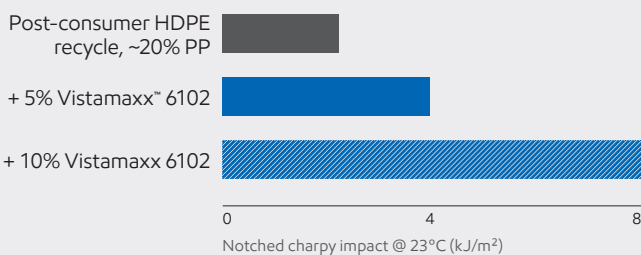
“A to Z Textile Mills is a very forward-looking company that supports sustainability activities and values innovative technology solutions. We are pleased that ExxonMobil's portfolio of innovative products continues to facilitate and add value to A to Z's journey in the recycling space,” says Ranjan Nath, ExxonMobil Sales Account Manager, East Africa.

Rethink Recycle with Vistamaxx™ performance polymers

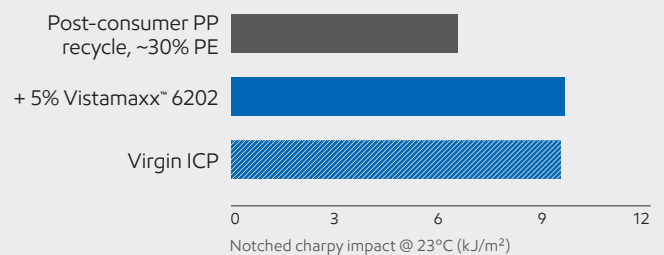
One of the main barriers to using recycled material is the need for costly and time-consuming separation of incompatible plastics. By allowing incompatible PE and PP plastics to mix in the melt, Vistamaxx polymers reduce the need for separation and offer manufacturers the possibility of higher-quality outputs, cost reduction due to increased recycle content, and potential access to new lower quality, low-cost sources.

Vistamaxx™ performance polymers deliver higher impact strength to recycled material for more durable, sturdier products

Upgrade of low-quality recycle streams—household waste



250% higher impact strength



50% higher impact strength

What's new: ExxonMobil Signature Polymers

All our polymers are now positioned under a single portfolio brand: Signature Polymers. The aim is to simplify our product architecture and naming to improve portfolio navigation for you. We would like to stress that our commitment to high quality products remains the same, it is names that change. Grade slate of Vistamaxx™ performance polymers will keep unchanged.

Want to see what's changed in our portfolio? Go to exxonmobilchemical.com/sptransform

Contact us for more information: exxonmobilchemical.com/vistamaxx

ExxonMobil
Signature Polymers

Bring your impossible



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