



Exceed™ Tough

## Exceed Tough performance polymers bring manufacturing cycle time reduction and improved mechanical properties in rotomolded water storage tanks for Kentainers



Excellent ESCR  
performance



Reduced cooking time  
with faster melting  
performance



Improved  
impact resistance

Data and results presented herein apply specifically to the noted application under this fact sheet. Your results may differ depending on factors such as operating conditions, equipment and materials used.

### Challenge

Streamlining water storage tank production through standardization of raw material to a single resin grade while maintaining tank performance

Kentainers Ltd is one of the largest manufacturers of polyethylene rotomolded products in Kenya and the surrounding countries. Currently, they produce water storage tanks and other rotomolding products for the Kenya, Uganda, Rwanda and Zambia markets.

They had been looking to streamline their production for water storage tanks by standardizing the raw materials used to a suitable resin grade. This would allow them to improve efficiency of the manufacturing process by eliminating variability in the material used.

In addition, due to the locality of the manufacturing plant, supply chain constraints were a concern for Kentainers.

### Solution

Exceed™ Tough m 4536PA performance polyethylene delivers excellent impact resistance, toughness and strength needed to meet the demands of water storage tank usage

Grade advice was provided by ExxonMobil for Kentainers to select the most suitable single grade of resin that would help them deliver high performing rotomolded water storage tanks that can meet the demands of the market.

Through several trials, Exceed Tough m 4536PA was identified as the resin grade of choice that was able to complete existing C4LL, C6LL and other commodity resins used by Kentainers in the manufacturing of the water storage tanks. Exceed Tough performance polyethylene provided excellent environmental stress crack resistance (ESCR), impact and puncture resistance ensured less product failure due to rough handling of the water storage tanks.

Using Exceed Tough m 4536PA to produce the tanks also allowed Kentainers to reduce the cooking time to prepare the resins for molding, helping improve overall productivity.

## Results

Kentainers saw positive results when they changed from their existing variety of resins to using Exceed™ Tough m 4536PA performance polyethylene to produce their water storage tanks:

- Cooking time was reduced by 5-25%, which meant less energy spent to manufacture each tank.
- Higher efficiency, resulting in up to 20% increase in productivity.

ExxonMobil's supply chain and business support enabled Kentainers to improve their operations. The use of Exceed Tough performance PE also debottlenecked Kentainer's operations and allowed for additional production without investments.

Switching to ExxonMobil performance polyethylene made lightweighting of tanks while maintaining performance possible. Kentainers saw opportunities to lightweight the water storage tanks by up to 10%.

## 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. The composition of the products are unchanged, it is only the names that updated. We will be making these modifications over the next few months, through mid 2025, so you will see both old and new grade names highlighted during that time. Here's a quick overview of brands and grade names that have changed in this document:

**Legacy Commercial Name**  
Exceed™ 4536PA

**New Commercial Name**  
Exceed™ Tough m 4536PA

Want to see what's changed in our portfolio? Go to [exxonmobilchemical.com/spttransform](https://exxonmobilchemical.com/spttransform)

**ExxonMobil**  
*Signature Polymers*

**Bring your impossible**

ExxonMobil Signature Polymers was born from the belief that people fuel progress. From automotive and construction to packaging, agriculture, industrial, and beyond, we leverage the scale and reach of ExxonMobil to deliver the insights and innovations that empower our diverse, global partners to take their businesses to new heights. We continuously work to provide the listen-first, service-driven, game-changing collaboration that unlocks opportunities for our partners and advances business goals.



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