



Energy lives here™

## Rethink Recycle:

### Turning discarded milk tea cups to useful phone cases

#### Key benefits



Improved toughness



Improved flowability



Comfortable touch

#### Partners

**Meituan Waimai** China's number one food delivery company

**TRASHAUS** Circular economy partner

**Rhino** PCR recycler and compounder

#### Challenge

Everyone, corporations and individuals alike is looking for ways to reduce their impact on the environment.

Meituan Waimai, China's number one food delivery service provider, wanted to do their part to protect the environment, so they launched the Blue Mountain initiative to encourage the reuse of food packaging. They identified HeyTea as a possible partner. As a leading vendor of milk tea, HeyTea uses tens of millions of disposable cups every year. The cups are made of polypropylene, a common material for food packaging since it is resistant to high temperatures. But when it is recycled on its own it becomes brittle, so it was difficult to find a worthwhile end product.

#### Solution

Meituan Waimai contacted TRASHAUS, a circular economy partner. TRASHAUS suggested turning the cups into cellphone cases, which are popular with young consumers. However, they needed help to overcome the limitations of the polypropylene. Rhino, a leading PCR recycler and compounder—suggested a solution that could improve the recyclability of polypropylene and allow them to make the project a reality - Vistamaxx™ performance polymers.

ExxonMobil then joined the project as a partner, bringing these benefits of Vistamaxx performance polymers to the project:

- Improved toughness, reducing the brittleness of the polypropylene
- Improved flowability, making production easier
- A comfortable touch - so important for a product that is frequently held in the hand for long periods of time

Half a tea cup and only 0.6g of Vistamaxx polymers are all it takes to make a cellphone case!

#### Results

Using Vistamaxx performance polymers allowed the partners to create a useful phone case from milk tea cups that would have previously been discarded. Meituan Waimai and HeyTea introduced the project to 12 Shanghai stores.

Consumers were pleased to see that their tea cups could have a second life and the industry was excited to see an example of what can happen when you Rethink Recycle.



# From discarded tea cups to cell phone cases, Vistamaxx™ performance polymers can give plastic waste a new life.

By working in partnership throughout the value chain, Meituan Waimai, HeyTea, TRASHAUS, Rhino and ExxonMobil took an unwanted product and turned it into something useful and desirable.

## Discarded milk tea cups



## Meituan Waimai

"We launched the Blue Mountain Project to collaborate with partners and unlock opportunities along the value chain. By extending the life cycle of disposable plastic products through recycling we can use resources more efficiently and give plastic waste a new life."

*Yang Bicong, Secretary-General,  
CSR Committee of Meituan Waimai*



## Durable, comfortable cell phone cases



1900 cups equals



3800 phone cases



## TRASHAUS

"TRASHAUS helped Meituan Waimai design and build up a recycling program for a takeout food and beverage packaging, and explore more diverse solutions. For young people nowadays, cell phone cases are not just to protect phones or make them stylish, but also a way of self-expression. Through insightful design and creativity, we transformed the discarded cups into cell phone cases that stay with customers and bring them joy."

*Vans Zhang, Founder, TRASHAUS*

## Rhino

"Milk tea cups and food containers are usually made from polypropylene, which cannot typically be used in recycled products because it becomes brittle after recycling. Adding Vistamaxx performance polymers, enhances the impact strength and durability which makes it possible to make cell phone cases with comfortable touch."

*Andy Liu, Deputy General Manager,  
Guangdong Rhino New Material Technology Co., Ltd.*

Contact us for more information:  
[exxonmobilchemical.com/rethinkrecycle](http://exxonmobilchemical.com/rethinkrecycle)  
#rethinkrecycle  

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