

Enable™ performance PE

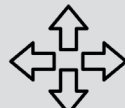
## Enable™ performance PE-based masterbatch carrier improves wire and cable performance



Enhanced  
heat shock  
resistance



Improved  
tensile  
strength



Enhanced  
dispersion



Excellent  
production  
efficiency

### Challenge

#### Develop a masterbatch carrier to enhance wire and cable performance

Existing masterbatch formulations comprise a carrier, typically LLDPE or HDPE, and a coloring pigment such as carbon black. Even though the masterbatch is used in small doses, the carrier used can play a critical role in the strength of the final product.

BeiHuaGaoKe (BHGK) was founded in 2001 and is today a leading masterbatch manufacturer in China, especially in carbon black masterbatch production. Headquartered in Beijing with an office in Shanghai, they have a manufacturing facility in North China. BHGK wanted to improve the performance of its masterbatch products used for wire and cable applications, such as jacketing.

### Solution

#### Performance PE-based masterbatch carriers for enhanced performance

ExxonMobil and BHGK collaborated to test masterbatch carrier solutions that would improve carbon black dispersion and production efficiency, while enhancing final product strength.

ExxonMobil recommended replacing traditional LLDPE/HDPE carriers with our performance polyethylene (PE) polymers. Formulations were developed and tests conducted to examine the mechanical performance of jacketing when using different carriers such as LLDPE and our performance PE products.

### Results

#### Enable™-based masterbatch carrier improves heat shock resistance and tensile strength

When Enable 4009 performance PE is used as a masterbatch carrier, jacketing compounds demonstrated enhanced performance compared to a traditional LLDPE carrier in these areas:

- Enhanced heat shock resistance
- Better carbon black dispersion (40% carbon black wt%)
- Improved tensile strength and elongation
- Excellent production efficiency

Contact us for more information: [exxonmobilchemical.com/pe](https://exxonmobilchemical.com/pe)



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# 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 will be changed in this document:

Legacy Commercial Name	New Commercial Name
Enable™ 4009	Exceed™ Flow+ m 0938

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