

Oppera™ modifiers

**ExxonMobil**

Fresh thinking,  
fresh possibilities.

Energy lives here™



# Improving BOPP film performance

Oppera™ modifiers play an active role in the manufacturing of chlorine-free, transparent or opaque films with added stiffness and barrier properties. This enables the production of downgauged films, reducing raw material consumption, while extending shelf life and product freshness. Altogether, Oppera modifiers support sustainable BOPP film development.

Oppera modifiers are approved in direct food contact applications by US FDA, China National Standard, European Commission, and Japanese OHSPA. Please contact your ExxonMobil representative for specific compliance information.

Better protection against moisture and enhanced stiffness properties – these are just a glimpse of Oppera benefits. However, there's more to Oppera than meets the eye when it comes to ensuring all-round freshness and quality. Oppera modifiers further enhance the overall packaging experience and consumer perception through:

- >> **Enhanced optics** films with low haze and high gloss, for an appealing product display
- >> **Improved shrinkage**, providing tight corner wrap and a neat look to luxury goods packaging.
- >> **Improved machinability** during challenging converting operations. For example, stiffer films will help maintain high printing quality at faster speeds

With Oppera modifiers, film producers can also ensure that their production is **cost-effective** and **trouble-free**, with **minimum scrap** rates.

- >> A reduced melt viscosity and the ability to lower stretch/orientation temperatures helps to **reduce power consumption**
- >> **Smooth extrusion** of difficult polymers is made possible, with fewer films breaks interrupting operations
- >> Our products have a proven track record of **cleanliness and consistency**



**Broader reasons** to choose Oppera modifiers:

- >> Backed by ExxonMobil's vast and valuable **experience in film and packaging** applications
- >> **Technical experts** from our R&D centers in Americas, Europe, and Asia-Pacific to support you locally
- >> **Global supply security** from plants in US, Europe and Singapore (expected to open end 2017)





# The right choice for your business

You may be in the market for a product that extends your possibilities with the highest performance standards. Or perhaps you are in search of a solution that balances your technical requirements and your bottom line.

ExxonMobil Chemical offers you a choice of two Oppera modifier grades to fulfil your needs:

## Oppera PR 100

where the highest performance matters

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>> Highest 140 °C <sup>(1)</sup> Softening Point

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>> Higher stiffness

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>> Higher barrier

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>> Lowest volatiles

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## Oppera PR 120

where both performance and cost matter

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>> High 125 °C <sup>(1)</sup> Softening Point (S.P.)

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>> Lower volatiles and better barrier than competition products at similar S.P.

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<sup>(1)</sup>Typical value, Test Method: ETM E-24

# Applications and benefits

From food packaging to confectionery, tea and even cosmetics wrapping, Oppera™ modifiers play a significant role in our daily lives.

## Uses:

- >> Clear barrier BOPP films for snack foods, candy and bakery goods
- >> White opaque BOPP films for candy and snack foods
- >> Cast and BOPP twist film for candy
- >> High shrink overwrap for tobacco, tea and cosmetics
- >> Stiff and clear tapes and labels



Oppera modifiers have proven to maximize desired properties in a broad range of film & sheet applications:

- >> Shrink overwrap films
- >> Metallized films
- >> Multilayer sheet
- >> Cast films
- >> Clear barrier film
- >> High stiffness films
- >> Twist films
- >> Protective film

## ExxonMobil

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For more information, please visit  
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