



# PERFORMALENE Polyethylenes

Specialty polymers and waxes to meet your needs

## Typical properties

| Product                        | INCI name    | Melt point °C | Viscosity cP @ 148 °C | Penetration .1mm @ 25 °C | Appearance (particle size) |
|--------------------------------|--------------|---------------|-----------------------|--------------------------|----------------------------|
| PERFORMALENE 400 polyethylene  | Polyethylene | 84            | 4                     | 10                       | White prill                |
| PERFORMALENE PL polyethylene   | Polyethylene | 88            | 4                     | 5                        | White prill                |
| PERFORMALENE 655 polyethylene  | Polyethylene | 100           | 6                     | 2                        | White prill                |
| PERFORMALENE Scrub Beads       | Polyethylene | 113           | NA                    | 1                        | White spheres 800 microns  |
| PERFORMALENE SE/2 polyethylene | Polyethylene | 125           | NA                    | 0.5                      | White powder 200 microns   |

## Description

PERFORMALENE™ polyethylenes are linear, low molecular weight polyethylene waxes. They are supplied as small spherical particles or ground powder. Their linearity and narrow molecular weight distribution make PERFORMALENE polyethylenes particularly suited to the high quality and performance requirements of the cosmetic industry.

## Product benefits

| Feature                  | Benefit   |
|--------------------------|---|
| Low melt viscosity       | <ul style="list-style-type: none"> <li>• Easy to formulate</li> </ul>   |
| Totally linear backbone  | <ul style="list-style-type: none"> <li>• Improved stick ability</li> <li>• Efficient oil structure</li> <li>• Uniform payout</li> <li>• Matte appearance</li> </ul> |
| Low molecular weight     | <ul style="list-style-type: none"> <li>• Light feel on skin</li> <li>• Comfortable, breathable film</li> </ul>  |
| Oil thickening, rheology | <ul style="list-style-type: none"> <li>• SPF enhancement</li> <li>• Improved oil phase stability</li> </ul>   |
| Hydrophobic              | <ul style="list-style-type: none"> <li>• Water resistance</li> </ul>  |

## Applications

PERFORMALENE polyethylenes are excellent for thickening and structuring oils. They are compatible with most cosmetic oils and form heat stable stick formulas with good payout and uniform quality. They are very efficient, requiring only 2-15% loading to form sticks or soft solids.

In creams, lotions and hair waxes, PERFORMALENE polyethylenes thicken the oil phase. On application, they form a flexible, light film with a matte appearance. In sunscreens, these polymers have the ability to double SPF values by changing the rheology of the oil phase to achieve more uniform application and coverage. Recommended use levels are 1-3%.

Higher molecular weight PERFORMALENE polyethylenes provide gentle exfoliation and massaging action for scrub and body wash applications. PERFORMALENE SE/2 polyethylene is a mild abrasive with irregular shaped particles. PERFORMALENE Scrub Beads are spherical particles that are perfect for body washes.

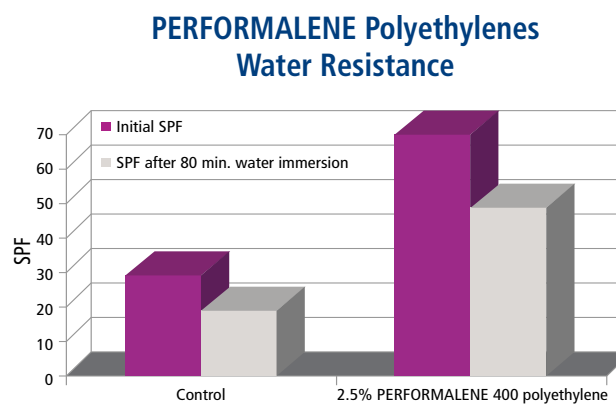
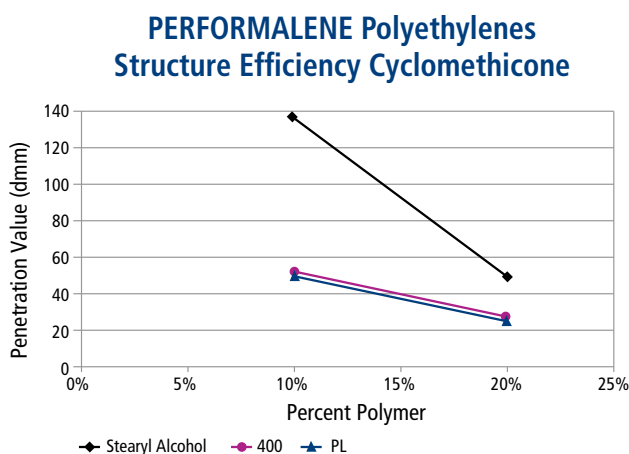
## Product availability

The standard package size is a 55 lb bag. 16 oz samples are also available. Other packages are available upon request.

## Safety data

Material Safety Data Sheets and product safety information can be requested by visiting us at [www.newphasepolymers.com](http://www.newphasepolymers.com)

## Performance data



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Because it has become common for purchasers of our products to file patents for specific end uses of our polymer products, Baker Hughes advises its customers to research their particular end use for possible intellectual property issues with respect to third party patents.

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