

# Inorganic Antiblock Solutions

## Overview:

Antiblock masterbatches are used to prevent the adhesion or “blocking” of two adjacent film layers. This makes it easy to separate films which naturally stick to one another when rolled.

Critical concerns in today’s competitive marketplace are: Resultant blocking force, imparted haze and cost. Inorganic antiblocks are non-migratory additives useful for all polyolefin extrusion temperature applications. The particle size and shape of the additive (as well as quality of dispersion) play a key role in determining its antiblocking efficiency.



## Select Antiblocks:

Diatomaceous Earth	I01736	Nepheline Syenite	I03240
Talc	I00165-C	Engineered Material	I000215-N

## Comparative Advantages:

### Inorganic Antiblock Types

Properties	Good	Better		Best
<b>Lowest Blocking Force</b>	Nepheline Syenite	Engineered Material	Talc	Diatomaceous Earth
<b>Highest Clarity</b> (least haze)	Talc	Diatomaceous Earth	Nepheline Syenite	Engineered Material
<b>Lowest Cost</b>	Diatomaceous Earth	Nepheline Syenite	Talc	Engineered Material

## Summary:

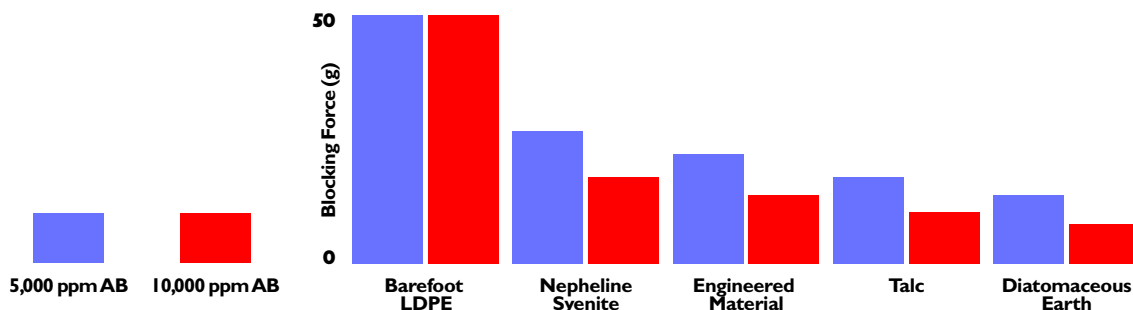
Diatomaceous earth (DE) and talc prove to be the most efficient antiblocks currently available. Indications are that masterbatches containing Ampacet’s engineered materials may be the antiblock of choice if the lowest cost/performance ratio is desired.



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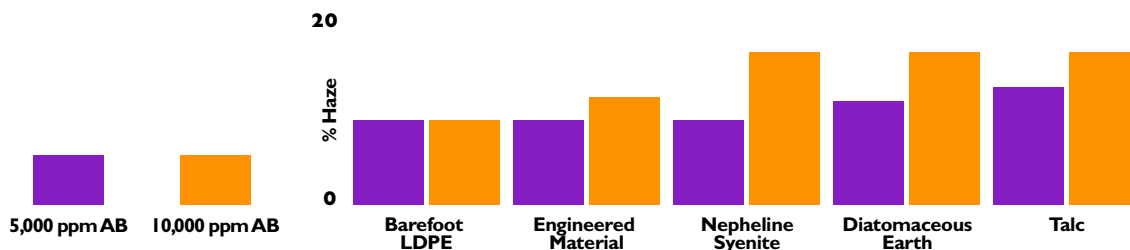
## Test Data

### Blocking Force: 1 mil LDPE



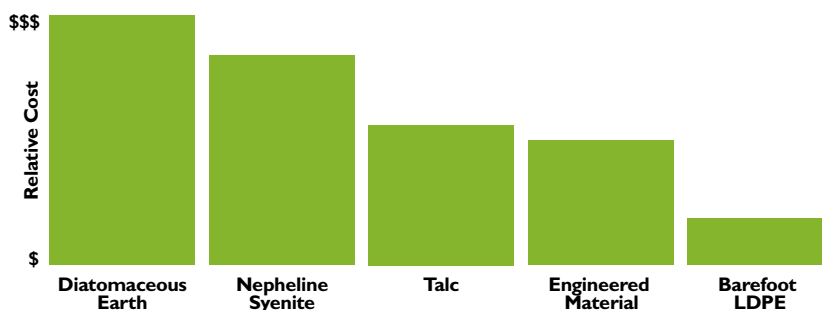
**Blocking Force** Blocking is the adhesion of two adjacent layers of film—most often associated with polyethylene and polypropylene films (either blown or cast), and to a lesser extent in extrusion coated or laminated products. Diatomaceous earth-based masterbatches like Ampacet 101736 stand out as the most effective in reducing blocking force, although it is more expensive compared to other options.

### Antiblock Clarity: 1 mil LDPE



**Imparted Haze** An engineered material-based masterbatch can be a good choice when considering clarity, balancing cost with blocking performance, albeit with a lower reduction in blocking force than diatomaceous earth.

### Relative Cost of Antiblock



**Cost** Ampacet has developed several antiblock masterbatches containing a proprietary engineered material, which balances clarity with cost-effectiveness.

For more information on Inorganic Antiblock Masterbatches and to select the best material for your specific application, contact your Ampacet Account Representative and visit

<https://ampacetstage.wpengine.com/masterbatch-products/ampacet-additives/antiblock-concentrates/>



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