Chemical nature and physical properties

Baker Petrolite Polymers anti-blocking agents range from refined petroleum-derived microcrystalline waxes to specialty low molecular weight olefin-based polymers having a very linear structure and narrow molecular weight distribution.

Anti-blocking agents are used for a wide variety of applications including:
- Non-clumping and free flow of pellets during packaging, shipping, and transfer
- Control of surface tackiness of injection, rotational, and blow molded parts
- Easy separation between layers of stacked sheets and wound film rolls

Anti-blocking agents: typical properties

<table>
<thead>
<tr>
<th>Product</th>
<th>Penetration @ 25°C (dmm)</th>
<th>Melting Point (°C)</th>
<th>Viscosity (cPs @ 149°C)</th>
<th>Packaging</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ASTM D-1321</td>
<td>ASTM D-127</td>
<td>ASTM D-3236</td>
<td>Form</td>
</tr>
<tr>
<td>BE SQUARE™ 195 white wax</td>
<td>8</td>
<td>92&lt;sup&gt;1&lt;/sup&gt;</td>
<td>17&lt;sup&gt;2&lt;/sup&gt;</td>
<td>Pastille Bag</td>
</tr>
<tr>
<td>PERTOLITE™ 5000 polymer</td>
<td>1</td>
<td>113</td>
<td>15</td>
<td>Micronized Bag</td>
</tr>
<tr>
<td>PETROLITE™ EP-700 copolymer</td>
<td>6</td>
<td>96</td>
<td>7&lt;sup&gt;1&lt;/sup&gt;</td>
<td>Prill, mini-prill Bag</td>
</tr>
<tr>
<td>POLYWAX™ 500 polymer</td>
<td>5.5</td>
<td>88</td>
<td>8.5&lt;sup&gt;1&lt;/sup&gt;</td>
<td>Prill, mini-prill Bag</td>
</tr>
<tr>
<td>POLYWAX 655 polymer</td>
<td>2</td>
<td>99</td>
<td>7</td>
<td>Prill, mini-prill Bag</td>
</tr>
<tr>
<td>POLYWAX 2000 polymer</td>
<td>0.5</td>
<td>126</td>
<td>55</td>
<td>Prill, mini-prill Bag</td>
</tr>
</tbody>
</table>

<sup>1</sup> Melting point was determined via ASTM D-3954 - modified
<sup>2</sup> Viscosity number was determined via ASTM D-3236 - modified (cPs @ 99°C)
Product use
For internal anti-block applications/inclusion, materials should be compounded into the polymer via masterbatch, direct input at the extruder feed, or molten liquid injection into the extruder.

For higher tack polymers or applications, the materials may be added externally through dusting or direct impingement.

Dosage will vary depending on the application but will typically run between 500 and 2000 ppm.

Polymers known to have seen direct benefit
- Blends of Styrenic Polymers
- Styrene Butadiene Block Copolymers
- Styrene Ethylene Butadiene Styrene Copolymers
- Thermoplastic Elastomers
- Thermoplastic Polyesters
- Thermoplastic Polyurethanes

Standard product form and packaging:
Form: Pastille
Packaging: 25 kg. per bag; 40 bags (1000 kg.) per pallet

Form: Prills and Mini-Prills
Packaging: 25 kg. per bag; 40 bags (1000 kg.) per pallet
25 kg. per small fiber drums; 16 (400 kg.) or 32 (800 kg.) drums per pallet

Form: Micronized
Packaging: 25 lbs per bag; 40 bags (1000 lbs) per pallet

FDA Status: Please refer to Baker Petrolite Polymers FDA Guide PET-07-14148

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