INTRODUCTION

PBAT and PBS have excellent mechanical performance, almost same as PP and ABS, good heat resistance and outstanding process ability allows it to be variously processed on conventional blown film plants, it is the best biodegradable plastic in terms of process ability in current market and can be blended with a great quantity of calcium carbonate and starch etc. to produce cost effective products.

Our PBAT and PBS are completely compostable according to various international standards and regulations like European standard EN 13432 and American Standard ASTM 6400, which will be eventually biodegraded to carbon dioxide, water and biomass when metabolized in the soil or compostable under standard conditions. Our resins are also certified by Ok Compost, BPI, ABAM, JBPA, FDA, EU Food Contact regulations, etc.

TECHNICAL PROPERTIES

**PBAT**

Poly(butylene adipate-co-terephthalate)

<table>
<thead>
<tr>
<th>Typical Property</th>
<th>Unit</th>
<th>Test Method</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Density</td>
<td>g/cm³</td>
<td>ISO 1183</td>
<td>1.21</td>
</tr>
<tr>
<td>MFR 190°C,2160g</td>
<td>g/10min</td>
<td>ISO 1133</td>
<td>2.5~4.5</td>
</tr>
<tr>
<td>Melting Point</td>
<td>℃</td>
<td>ISO 11357</td>
<td>116~122</td>
</tr>
<tr>
<td>Vicat A/50</td>
<td>℃</td>
<td>ISO 306</td>
<td>≥80</td>
</tr>
<tr>
<td>Tensile Strength</td>
<td>MPa</td>
<td>ISO 527</td>
<td>≥25</td>
</tr>
<tr>
<td>Elongation</td>
<td>%</td>
<td>ISO 527</td>
<td>≥400</td>
</tr>
<tr>
<td>Moisture</td>
<td>%</td>
<td></td>
<td>≤0.06</td>
</tr>
</tbody>
</table>
Max Thickness of Film:
61μm

Package:
25kg aluminum bag, each 20’ container can load 17mt
800kg aluminum big bag, each 20’ container can load 16mt

Storage:
Temperatures during transportation and storage should not exceed 70 ºC. Keep resin in dry and ventilated warehouse to prevent moisture. Avoid contacting with soil, water and sludge, and no exposure to direct sunlight and extreme temperature. The maximum shelf life is 2 years in ambient temperature of 23ºC if the package has been tightly sealed.

Drying:
It is recommended to pre-dry the material prior to getting the best processing performance. If the moisture of the resin is less than 0.05% pre-drying may not be needed.

Typical drying conditions:  2 hours at 80ºC (175°F).

Processing guide:
TH801T is not suitable for direct film blowing, it is suggested to add slip additive like SiO2 or CaCO3, it can also be blended with starch, PLA, PHA, cellulous etc. Normally the extrusion temperature is 140ºC -170ºC which depends on formula and processing machine, it is important to make sure the blowing machine starts from the lowest temperature. If the blowing performance is not optimized it is recommended to increase the temperature by 5ºC
PBAT/PBS
Technical Data Sheet (Version 2.0)

PBS
Polybutylene succinate

Molecular Formula: \( HO-(CO-(CH_2)2-CO-O-(CH_2)4-O)_n-H \)
CAS NO: 25777-14-4
Color: Natural white
Raw material: BDO (1,4-butanediol) Succinic Acid
Application: injection molding tablewares and cutlery textile, fishing net, engineering components medical applications, etc

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<td>7-15 or</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>16-20</td>
</tr>
<tr>
<td>Melt Point</td>
<td>°C</td>
<td>ISO 11357</td>
<td>110–116</td>
</tr>
<tr>
<td>HDT B/Tf0.45</td>
<td>°C</td>
<td>ISO 75</td>
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<tr>
<td>Tensile Strength</td>
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<td>ISO 527</td>
<td>≥40</td>
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<tr>
<td>Elongation</td>
<td>%</td>
<td>ISO 527</td>
<td>≥350</td>
</tr>
<tr>
<td>Moisture</td>
<td>%</td>
<td></td>
<td>≤0.06</td>
</tr>
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</table>
Max Thickness of Film:
68μm

Package:
25kg aluminum bag, each 20’ container can load 17mt
800kg aluminum big bag, each 20’ container can load 16mt

Storage:
Temperatures during transportation and storage should not exceed 70 ºC. Keep resin in dry and
ventilated warehouse to prevent moisture. Avoid contacting with soil, water and sludge, and no
exposure to direct sunlight and extreme temperature. The maximum shelf life is 2 years in ambient
temperature of 23ºC if the package has been tightly sealed.

Drying:
It is recommended to pre-dry the material prior to getting the best processing performance. If the
moisture of the resin is less than 0.05% pre-drying may not be needed.

Typical drying conditions: 2 hours at 80ºC (175ºF).

Processing guide:
TH803S can be independently used in the ordinary injection molding machine for processing, it can
also be blended with PLA.

CONTACT
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NOTE
The above information is provided as guidelines only. It is important that the customer evaluate any product
in their own resin system to determine suitability.