Akishima Chemical’s was established in 1946 in Japan. With now over 70 years’ experience developing and producing state-of-the-art stabilizers for the PVC industry, we are a renowned leader on the Consumer Goods (e.g. food wrapping), Construction (e.g. wallpaper) and Automotive Interior Trim Stabilizer markets.

PVC STABILIZERS

- Ba/Zn : Liquid and Powder
- Ca/Zn : Liquid and Powder
- Sn/Mercapto : Liquid
- Sn/Maleate : Liquid
- Sn/Carboxylate : Liquid
- Other Co-Stabilizers

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### PVC STABILIZERS

<table>
<thead>
<tr>
<th>TYPICAL APPLICATION / MARKET</th>
<th>NAMAN CODE</th>
<th>END PRODUCT (Flexible, Semi-Flexible, Rigid, Pipe)</th>
<th>PROCESS</th>
<th>PROPERTIES &amp; FEATURES</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ba/Zn (Liquid)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Firms &amp; Sheets</td>
<td>LT 701W</td>
<td>F / S / R</td>
<td></td>
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<tr>
<td></td>
<td>LT 702H</td>
<td>F / S / R</td>
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<tr>
<td>Foamed leather</td>
<td>LT 706D</td>
<td>F / S / R</td>
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<tr>
<td>Framed Sheets</td>
<td>LT 705K</td>
<td>F / S / R</td>
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<tr>
<td>Non-foam, wallpaper, Squeegee &amp; Curves</td>
<td>LT 801A</td>
<td>P / S / R</td>
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<tr>
<td>Foamed Wallpaper</td>
<td>LT 804B</td>
<td>P / S / R</td>
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<tr>
<td>Automotive Leather &amp; Interior Trim</td>
<td>LT 704L</td>
<td>F / S / R</td>
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<tr>
<td><strong>Ca/Zn (Liquid)</strong></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Firms &amp; Sheets</td>
<td>LT 705</td>
<td>F / S / R</td>
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<tr>
<td>Ca/Zn (Liquid)</td>
<td>FD-48</td>
<td>F / S / R</td>
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<tr>
<td>Ca/Zn (Liquid)</td>
<td>FD-31B</td>
<td>F / S / R</td>
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</tbody>
</table>

#### Ca/Zn (Powder)

- Excellent thermal stability, printability and prevention of die buildup.
- Ca/Zn type stabilizer with excellent thermal stability, should be used together with LT 705.
- Superior surface smoothness and improved foaming performance (homogeneity of cells).
- Improved stability of plastisol viscosity and color stabilization. Suitable for outdoor products when used in combination with UV Absorber.
- High transparency, excellent weatherability, stable plastisol, prevents discoloration over time.
- Excellent thermal stability, high transparency, excellent discoloration prevention and thermal stability.
- Improved foaming performance.
- Improved coloration prevention and thermal stability.
- Improves VOC and fogging, lower odor emission.
- Excellent thermal stability, high transparency, excellent discoloration prevention and thermal stability.
- Compliant with Japanese PRTR. Excellent thermal stability, high transparency, excellent discoloration prevention and thermal stability.
- Improved processing-ability, thermal stability, superior appearance of final product.
- High thermal stability, excellent weatherability, stable plastisol viscosity and color stabilization. Suitable for outdoor products when used in combination with UV Absorber.
- Improved foaming performance.
- Improved coloration prevention and thermal stability.

#### Ca/Zn/Mg (Liquid)

- Excellent thermal stability, high transparency, excellent discoloration prevention and thermal stability.
- Improved foaming performance.
- Improved coloration prevention and thermal stability.
- Improves VOC and fogging, lower odor emission.
- Excellent thermal stability, high transparency, excellent discoloration prevention and thermal stability.
- Compliant with Japanese PRTR. Excellent thermal stability, high transparency, excellent discoloration prevention and thermal stability.
- Improved foaming performance.
- Improved coloration prevention and thermal stability.

#### Dibutyl Tin Malate (Liquid)

- Excellent thermal stability and weatherability.
- Excellent coloration prevention and thermal stability.
- Improved foaming performance.
- Improved coloration prevention and thermal stability.

#### Dibutyl Tin Carboxylate (Liquid)

- Excellent thermal stability and weatherability.
- Improved foaming performance.
- Improved coloration prevention and thermal stability.

#### Ca/Zn (Powder)

- Excellent thermal stability, printability and prevention of die buildup.
- Ca/Zn type stabilizer with excellent thermal stability, should be used together with LT 705.
- Superior surface smoothness and improved foaming performance (homogeneity of cells).
- Improved stability of plastisol viscosity and color stabilization. Suitable for outdoor products when used in combination with UV Absorber.
- High transparency, excellent weatherability, stable plastisol, prevents discoloration over time.
- Excellent thermal stability, high transparency, excellent discoloration prevention and thermal stability.
- Improved foaming performance.
- Improved coloration prevention and thermal stability.
- Improves VOC and fogging, lower odor emission.

### CO-STABILIZERS

<table>
<thead>
<tr>
<th>FUNCTION</th>
<th>TYPICAL APPLICATION / MARKET</th>
<th>NAMAN CODE</th>
<th>TYPE</th>
<th>END PRODUCT (Flexible, Semi-Flexible, Rigid, Pipe)</th>
<th>PROPERTIES &amp; FEATURES</th>
</tr>
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<tbody>
<tr>
<td><strong>Powder</strong></td>
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</tr>
<tr>
<td>Co-stabilizer</td>
<td>Sheet, film, others</td>
<td>TE-83</td>
<td>Liquid</td>
<td>E-83</td>
<td>Excellent thermal stability.</td>
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<tr>
<td>Discoloration Inhibitor</td>
<td>Sheet, film, others</td>
<td>HM-50</td>
<td>Liquid</td>
<td>E-83</td>
<td>Excellent thermal stability, superior weatherability.</td>
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<tr>
<td>UV absorber</td>
<td>Sheet, film and others</td>
<td>MF-25A</td>
<td>Liquid</td>
<td>E-83</td>
<td>Excellent thermal stability.</td>
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<tr>
<td>Impact resistance additive</td>
<td>Window frame</td>
<td>0-300</td>
<td>Acrylic</td>
<td>E-83</td>
<td>Excellent thermal stability, superior weatherability.</td>
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<tr>
<td><strong>Liquid</strong></td>
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<tr>
<td>Anti-Oxidant</td>
<td>Sheet, film, others</td>
<td>WP-100</td>
<td>Liquid</td>
<td>E-83</td>
<td>Excellent thermal stability, superior weatherability.</td>
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<tr>
<td>Die build up prevention</td>
<td>Sheet, film and others</td>
<td>TE-45</td>
<td>Liquid</td>
<td>E-83</td>
<td>Excellent thermal stability.</td>
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<tr>
<td>Foamed cells regulator</td>
<td>Foamed wallpaper</td>
<td>F-300K</td>
<td>Acrylic</td>
<td>E-83</td>
<td>Excellent thermal stability.</td>
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<td>Co-stabilizer</td>
<td>Film</td>
<td>LT 1000K</td>
<td>Phosphate</td>
<td>E-83</td>
<td>Excellent thermal stability.</td>
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<tr>
<td>Co-stabilizer</td>
<td>Film</td>
<td>LT 1000H</td>
<td>Phosphate</td>
<td>E-83</td>
<td>Excellent thermal stability.</td>
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