ZESTRON offers several water-based and solvent-based cleaning agents for Advanced Packages, focusing on defluxing after die attach of FlipChips, SiP and CMOS prior to underfilling, wire bonding and molding, and after wafer bumping. Excellent cleaning performance under low standoffs and compatibility with various materials are key features, ensuring proper, void-free underfill wetting, good wire bonding quality and preventing mold delamination or wafer bump pitting.

### Cleaning Agent Overview

<table>
<thead>
<tr>
<th>Product Technology</th>
<th>Cleaning agents</th>
<th>Application</th>
<th>Process type</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MPC®</strong> (water-based)</td>
<td>VIGON® N 600</td>
<td>● ● ● ● ● ● ●</td>
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<tr>
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<td>VIGON® A 201</td>
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<td>VIGON® A 250</td>
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<td></td>
<td>VIGON® US</td>
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<tr>
<td><strong>HYDRON®</strong> (single-phase, water-based)</td>
<td>HYDRON® SE 220</td>
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<td>HYDRON® SE 230A</td>
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<tr>
<td><strong>FAST®</strong> (water-based surfactant)</td>
<td>ATRON® AC 205</td>
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<tr>
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<td>ATRON® AC 207</td>
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<tr>
<td><strong>Solvent</strong></td>
<td>ZESTRON® FA+</td>
<td>● ● ● ● ● ● ●</td>
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</table>

- ● Dedicated application – product specifically designed for this application
- ● Suitable application – product is recommended for this application
Applications & Advantages

SiP / 2.5/3D TSV / Flip Chip / BGAs / Single Components
Defluxing after die attach prior to wire bonding, underfilling and molding is the key challenge, especially with regards to TSV and ever increasing packaging density and decreasing standoffs. ZESTRON’s cleaning agents provide good defluxing performance and excellent capillary penetration under low standoffs down to 20-30µm. They ensure optimal conditions for a subsequent underfill process, leading to an excellent wetting of the underfill material and thus preventing underfill voids. At the same time, they ensure a high wire bonding quality and good mold adhesion.

CMOS / Camera Modules
Cleaning CMOS (Complementary Metal-Oxide-Semiconductor) requires defluxing after die attach as well as the removal of particles. ZESTRON’s recommended products provide excellent defluxing and rinsing performance, leaving no residues of contamination or cleaning agent after rinsing and drying. In addition, they ensure that all particles are removed from the surfaces, thereby preventing any failures of optical functionalities (i.e. cameras, sensors etc.).

Wafer
Wafer usually need defluxing after wafer bumping. ZESTRON offers water-based wafer cleaning agents, which ensure that no flux residues remain around the bumps. They provide excellent material compatibility with wafer bumping alloys and prevent any attack (pitting) of wafer bumps. They are compatible with various passivations such as BCB, Silicon Nitride or Polyimide and recommended for the use in common single or batch wafer processes.

Environmental, Health & Safety Regulations
All ZESTRON cleaning agents are compliant with RoHS I & II / WEEE, GHS / CLP, and REACH and do not contain any substances included in the SVHC or S.I.N. list. Only the most environmentally-friendly and worker-safe raw materials are used.

For additional information documents, please contact us at:
Europe: info@zestron.com / South Asia: infoasia@zestron.com

Additionally available Product Information
» Technical Information
  Information about the product including application, advantages and physical data

» Material Compatibility
  Overview of material compatibility with components, parts and cleaning machines

» Safety Data Sheet
  Information on composition, handling precautions, transport and storage

» MPC® Technology Flyer
  Information about the water-based cleaning technology

» FAST® Technology Flyer
  Information about the surfactant-based cleaning technology

» HYDRON® Technology Flyer
  Information about the water-based, single-phase cleaning technology