IMPRESS™ ID PAPER ADDITIVES FOR HP INDIGO DIGITAL PRESSES

For the production of papers with a 3-star rating for HP Indigo Digital Presses

- Superior runnability without changes to size press or machine settings
- Extreme versatility to accommodate an array of chemistries, starches and setups
- Exceptional performance, with high-efficient adhesion of Indigo images
Produce High-Quality Papers for HP Digital Presses

Solenis has introduced new products in its imPress line of additives designed for papermakers looking to efficiently and cost-effectively produce papers with a 3-star rating for HP Indigo Digital Presses. Compared to the most common products on the market, the new imPress ID chemistries are up to eight times more efficient at generating Indigo print adhesion. Perfect image adhesion has been obtained with as little as 0.1 - 0.3% additive in the paper, which means mills can enjoy a number of benefits, whether they’re already making an Indigo-grade paper or looking to diversify by quickly adding an Indigo-grade paper.

Technology Overview

The Indigo ink is a liquid toner in which particles of polyethylene/ acrylic acid containing pigment are suspended in a light oil. To promote image adhesion, papermakers used polyethylene imine (PEI), which created a cationic paper to which the anionic ink was attracted. Unfortunately, papers treated this way were expensive to make and had yellowing issues. Over time, PEI was mostly displaced by size press treatments based on anionic polyethylene/ acrylic acid dispersions. Although they promoted adhesion, these dispersions were not efficient and led to runnability and paper quality issues.

The imPress technology from Solenis works differently, relying on thermodynamic attraction of the print ink to the paper treatment. Free energy drops as the ink and the treated paper interact with each other. As a result, adhesion is more efficient without the use of a dispersion.

Features and Benefits

<table>
<thead>
<tr>
<th>FEATURE</th>
<th>BENEFIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Runnability</td>
<td>In almost every run with imPress additives, no changes are required to size press or machine settings. And because the chemistry is a non-charged, clean, water-soluble formulation, it doesn’t form deposits, agglomerate, or cause stickies.</td>
</tr>
<tr>
<td>Versatility</td>
<td>The new imPress products play well with optical brightening agents and other size press chemistries and starches. Typical size press types and setups can be easily accommodated. Plus, grades produced with imPress remain within specifications for other markets, such as offset printing, making the chemistry.</td>
</tr>
<tr>
<td>Performance</td>
<td>Solenis’ new imPress additives are up to eight times more efficient at enabling adhesion of Indigo images compared to top competitive products. A wide variety of basis weights have met the Indigo adhesion targets — typically only 0.1 – 0.3% of the product is required and less may be needed on certain base sheets. Papers produced with imPress additives also meet blanket compatibility targets, the other measure of 3-star qualification.</td>
</tr>
<tr>
<td>Availability</td>
<td>The product can be made available for commercial applications in all regions. Currently, imPress ID-115 and ID-130 are available in North America, and imPress ID-215 and ID-220 are available in Europe.</td>
</tr>
</tbody>
</table>

Service and Support

Solenis has spent considerable time refining the imPress ID technology and understanding how and where it works best — both in the lab and in the mill. Our applications and technical staff are available to explain the technology, answer questions and help determine how much product will be needed for a particular paper base sheet. And our field sales team is available to run trials and make sure the product performs optimally in a real-world production environment.

More Information

For free technical advice and insights on how the imPress ID technology can help you build your competitive edge, talk to a Solenis expert today.