Advanced Solubility.  
Advanced Solutions.

After almost a decade of research and development, Sekisui Chemical Group is proud to announce the launch of its latest innovation: Advasol Water Soluble Films. This patented series of films extends the range of potential applications for water soluble dosing. Advasol films can package a variety of chemicals and products previously thought to be too aggressive for this form of packaging. Advasol offers the following distinct advantages:

- Chemical delivery convenience
- Safe handling of acidic and basic chemistries
- Improved compatibility with harsh chemicals
- Reduced overall packaging
- Precise dosing
- Limited user exposure
- Improved overall safety

Advasol films are printable and sealable using heat and/or water. These qualities allow you to customize your products. Our films can be used on conventional form, fill, and seal equipment and thermoforming machines without compromising performance and packaging characteristics.

Unrivaled water soluble film with broader chemical compatibility, supported by a global leader of creative technologies

Pool & Spa

- Trichlor
- Dichlor
- Cal-Hypo
- pH Adjusters
- Floculants
- Algaecides
- Biocides

Advasol Water Soluble Film comes in two distinct series—X series for harsh chemicals compatibility and S series for complex formulations. X Series films are perfect for aggressive pool chemicals like trichlor and dichlor, reducing the smell of these products, keeping user’s hands safe, and eliminating layers of packaging waste. S Series Films create convenient dosing for pool pigments, salts, fragrances, and other treatment ingredients that are often combined into a single consumer product.

Film Specifications

Thickness: 40um, 50um, and 76um. Customization is available.

Solubility* of Advasol Water Soluble Films

<table>
<thead>
<tr>
<th>Conditions</th>
<th>X-series</th>
<th>S-series</th>
</tr>
</thead>
<tbody>
<tr>
<td>23°C Distilled Water: 40 um</td>
<td>25 sec.</td>
<td>20 sec.</td>
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</tbody>
</table>

*Average values of typical film thickness

Dissolution time will vary based on packaged formulation

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SEKISUI

NEW!

PSP EXPO 2016 2nd Place
Testing Capabilities

Advasol maintains state of the art testing and prototyping facilities. Within our organization, we are capable of handling the complete product development process, from lab scale resin development and film formulation to prototyping and production scale-up. Our cutting edge testing equipment allows us to quickly characterize films and product compatibility. With these tools and services available to our customers, our R&D department is ready to assist you in creating competitive products to meet current and future needs.

Film Stability Comparison with TCCA*

<table>
<thead>
<tr>
<th>Time</th>
<th>Advasol XRV</th>
<th>Competitor</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 month</td>
<td></td>
<td></td>
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<tr>
<td>2 months</td>
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</tbody>
</table>

* Testing done via accelerated heat chamber

Compatibility Performance of Advasol X-series with TCCA*

![Graph showing compatibility performance](image)

About Sekisui Chemical Company

A new frontier, a new lifestyle.

Sekisui Chemical Group is a multibillion dollar, global company that delivers a wide range of products and services to enrich people’s lives. Sekisui has been striving to ‘produce a better world with creative technologies’ since its formation in 1947. The company is comprised of core businesses and technologies in housing, social infrastructure, and chemical solutions. Advasol film is the latest example of the depth and breadth of Sekisui Chemical Group’s innovative contributions to these key business fields.