AOC is a leading producer of unsaturated polyester and vinyl ester resins and is the world leader in innovative resin technology. AOC manufactures its products in facilities strategically located throughout North America and Europe. AOC owned facilities are ISO 9001:2008 certified and use AOC's proprietary process control technology to guarantee batch to batch consistency.

From isophthalic polyesters, and terephthalics, to epoxy novolac and bisphenol A vinyl esters, AOC offers local availability, worldwide, of a broad range of proven Vipel resins through its network of distributors and plants. Please contact the AOC Corrosion Specialists for Vipel resins that meet your corrosion resistant specifications, and put the technology and service of the AOC Corrosion Team to work for you.

CORROSIONRESINS.com

THE WORLD OF AOC

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Corrosion Leadership
Vipel® resin technologies are leading the fight against corrosion around the world. Corrosion resistance is a priority at AOC.

Innovative Technology
AOC chemists have created novel vinyl ester and unsaturated polyester technologies that can meet specific engineering requirements.

World Class Quality
AOC-owned manufacturing facilities are ISO 9001:2008-certified and use proprietary control technology to ensure resin consistency.

Solid Technical Support
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Where Vipel® goes to work for FGD

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THE WORLD OF AOC

AOC’s comprehensive family of Vipel corrosion-resistant resins provides the optimum technology for long-term cost/performance in a wide range of corrosive environments.

Resin Type | Resin Series | Description
--- | --- | ---
Bisphenol A Epoxy Vinyl Esters | F010 | Good balance of corrosion resistance and processability. User friendly in both filament winding and hand lay-up applications.
| F013 | Higher styrene content version of Vipel F010. Good resistance to flex cracking.
| F021 | Lower in specific gravity than Vipel F010. Excellent resistance to both acidic and alkaline environments plus thermal mechanical properties.
| F022-AC | File resistant, bifunctional bisphenol-A epoxy vinyl ester. Excellent resistance to both acidic and alkaline environments plus thermal mechanical properties.
| F022-CC | File resistant, bifunctional bisphenol-A epoxy vinyl ester. Excellent resistance to both acidic and alkaline environments plus thermal mechanical properties.
| F023 | File resistant, bifunctional bisphenol-A epoxy vinyl ester. High heat distortion temperature version of F010.
Electronic Bisphenol A Epoxy Vinyl Esters | F017 | Elastomeric bisphenol-A epoxy vinyl ester. For improved interlaminar adhesion and manufacturing composites that require extra flexibility.
Epoxy Novolac Vinyl Esters | F085 | Exceptional organic solvent resistance with improved high temperature properties.
| F086 | Higher heat distortion temperature version of F085. Performa in a hotter environment.
Sulfuric Acid Resistant Polyesters | F701 | High molecular weight, high temperature resistant to both acidic and alkaline environments, high strain, and shear.
| F702 | High molecular weight, high temperature resistant to both acidic and alkaline environments, high strain, and shear.
| F703 | High molecular weight, high temperature resistant to both acidic and alkaline environments, high strain, and shear.
| F704 | High molecular weight, high temperature resistant to both acidic and alkaline environments, high strain, and shear.
| F705 | High molecular weight, high temperature resistant to both acidic and alkaline environments, high strain, and shear.
| F706 | High molecular weight, high temperature resistant to both acidic and alkaline environments, high strain, and shear.
| F707 | High molecular weight, high temperature resistant to both acidic and alkaline environments, high strain, and shear.
| F708 | High molecular weight, high temperature resistant to both acidic and alkaline environments, high strain, and shear.
| F709 | High molecular weight, high temperature resistant to both acidic and alkaline environments, high strain, and shear.

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The internet’s best resource on corrosion-resistant composites.

**Vipel® Resin Overview**

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Epoxy Novolac Vinyl Esters | F085 | Exceptional organic solvent resistance with improved high temperature properties.
| F086 | Higher heat distortion temperature version of F085. Performa in a hotter environment.
Sulfuric Acid Resistant Polyesters | F701 | High molecular weight, high temperature resistant to both acidic and alkaline environments, high strain, and shear.
| F702 | High molecular weight, high temperature resistant to both acidic and alkaline environments, high strain, and shear.
| F703 | High molecular weight, high temperature resistant to both acidic and alkaline environments, high strain, and shear.
| F704 | High molecular weight, high temperature resistant to both acidic and alkaline environments, high strain, and shear.
| F705 | High molecular weight, high temperature resistant to both acidic and alkaline environments, high strain, and shear.
| F706 | High molecular weight, high temperature resistant to both acidic and alkaline environments, high strain, and shear.
| F707 | High molecular weight, high temperature resistant to both acidic and alkaline environments, high strain, and shear.
| F708 | High molecular weight, high temperature resistant to both acidic and alkaline environments, high strain, and shear.
| F709 | High molecular weight, high temperature resistant to both acidic and alkaline environments, high strain, and shear.

**AOC World Headquarters**

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<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bisphenol A Epoxy Vinyl Ester</strong></td>
<td>F010</td>
<td>Good balance of corrosion resistance and processability. User friendly in both filament winding and hand lay-up applications.</td>
</tr>
<tr>
<td></td>
<td>F013</td>
<td>Higher styrene content version of Vipel F010. Good resistance to hot caustic solutions.</td>
</tr>
<tr>
<td></td>
<td>F020-CC</td>
<td>Lower in specific gravity than Vipel F010 AA. Excellent resistance to both acidic and alkaline environments, plus thermal degradation properties. Class I flame spread developed without synergists.</td>
</tr>
<tr>
<td></td>
<td>F020-AC</td>
<td>Improved resistance to both acidic and alkaline environments, plus thermal degradation properties. Class I flame spread developed without synergists.</td>
</tr>
<tr>
<td></td>
<td>F020-CN</td>
<td>Excellent resistance to both acidic and alkaline environments. Class I flame spread developed without synergists.</td>
</tr>
</tbody>
</table>
| | F023 | Excellent resistance to both acidic and alkaline environments. Class I flame spread.

**Elastomeric Bisphenol A Epoxy**

<table>
<thead>
<tr>
<th>Resin Series</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>F017</td>
<td>Elastomeric bisphenol-A epoxy vinyl ester. For improved interlaminar adhesion and manufacturing composites that require extra flexibility.</td>
</tr>
</tbody>
</table>

**Epoxy Novolac Vinyl Ester**

<table>
<thead>
<tr>
<th>Resin Series</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>F085</td>
<td>Exceptional organic solvent resistance with improved high temperature properties.</td>
</tr>
<tr>
<td>F086</td>
<td>Higher heat distortion temperature version of F085. Performa in a hotter environment.</td>
</tr>
<tr>
<td>K085</td>
<td>Fire retardant, epoxy novolac, epoxy ring. Resistant to water, salt, and alkali for severe corrosion applications. Class I flame spread and osmeter developed without synergists.</td>
</tr>
</tbody>
</table>

**Bisphenol A Furanesic Polyester**

<table>
<thead>
<tr>
<th>Resin Series</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>F701</td>
<td>High molecular weight bisphenol-A furanesic polyester with high chemical resistance at moderate temperatures and excellent processability.</td>
</tr>
<tr>
<td>F713</td>
<td>High molecular weight, high temperature, high performance polyester resins for demanding environments.</td>
</tr>
<tr>
<td>F737</td>
<td>Resin for high temperature polyester. Designed for mold release applications.</td>
</tr>
<tr>
<td>F747</td>
<td>High temperature polyester resins.</td>
</tr>
</tbody>
</table>

**Isophthalic Polyesters**

<table>
<thead>
<tr>
<th>Resin Series</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>F701</td>
<td>High molecular weight, high performance polyester for wet, hot, and alkaline environments.</td>
</tr>
<tr>
<td>F711</td>
<td>High temperature, high performance polyester for wet, hot, and alkaline environments.</td>
</tr>
</tbody>
</table>

**Sulfonic Polyesters**

<table>
<thead>
<tr>
<th>Resin Series</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>F720</td>
<td>High molecular weight, high performance polyester for wet, hot, and alkaline environments.</td>
</tr>
</tbody>
</table>

**Vipel® Resin Overview**

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