



Vipel® Product Overview

FOR CORROSION
RESISTANT RESINS



| aliancys

THE RIGHT CHEMISTRY FOR THE HARSHTEST ENVIRONMENTS



AOC Aliancys is a leader in innovative corrosion resistant resin technology. This guide will help you select the Vipel resin that has the specific attributes you need for performance, processability and quality. You can rely on AOC Aliancys corrosion specialists to meet your project's unique needs.

CORROSION RESINS						
Resin Chemistry	Product Series	Description	Heat Distortion Temp. (°C / °F)	Elongation at Break (%)	Styrene Content (%)	FDA Title 21 CFR 177.2420 Versions
Bisphenol A Epoxy Vinyl Ester	F010	Excellent corrosion resistance to both acidic and alkaline environment. Suitable for equipment subjected to high static and dynamic loads.	120 / 248	6.2	38	Yes
	F013	Higher styrene bisphenol A epoxy vinyl ester resin. Offers the best resistance to hot caustic solutions.	111 / 232	6.6	45	Yes
	F007	Lower VOC/HAP bisphenol A epoxy vinyl ester resin.	130 / 266	5.1	32	Yes
Epoxy Novolac Vinyl Ester	F085	Suitable for elevated temperatures. Excellent resistance to acidic and mild alkaline environments. Performs well in a wide range of acidic oxidants and solvents.	149 / 300	3.3	34	No
	F086	Higher heat distortion temperature than Vipel F085. Preferred over standard epoxy novolac resins in chlorine and other oxidated environments.	165 / 330	2.8	37	No
Bisphenol A Fumarate Polyester	F282	Proven resistance to both acidic and alkaline environments. A powdered alkyd version of F282 is available.	135 / 275	2.6	50	Yes
Isophthalic Polyester	F701	A proven resin with broad chemical resistance at moderate temperatures. Resistant to many petroleum products including kerosene, heating oils and crude oils.	107 / 224	2.8	44	Yes
	F737	Higher elongation versions of F701 used primarily where additional flexibility is important, such as in filament winding and pultrusion processes.	92 / 197	4	40	Yes
	F739		89 / 192	4.9	37	Yes
	F764	A high reactivity resin that meets UL 1316, UL 1746 and Steel Tank Institute requirements. Field proven for many fuel blends.	139 / 282	2.3	42	Yes
Terephthalic Polyester	F774	Provides a higher heat distortion temperature while maintaining a higher elongation compared to F764. Vipel F774 also meets UL 1316, UL 1746 and Steel Tank Institute requirements. Field proven for many fuel blends.	146 / 295	2.3	42	No

The information contained in this brochure is based on laboratory data and field experience. AOC Aliancys believes this information to be reliable, but does not guarantee its applicability to the user's process or assume any liability for occurrences arising out of its use. The user, by accepting the products described herein, agrees to be responsible for thoroughly testing each such product before committing to production. Recommendations should not be taken as inducements to infringe any patent or violate any law, safety code or insurance regulation.

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CORROSION AND FIRE RETARDANT RESINS

Resin Chemistry	Product Series	Description	Heat Distortion Temp. (°C / °F)	Elongation at Break (%)	Styrene Content (%)	FDA Title 21 CFR 177.2420 Versions
Fire Retardant Brominated Bisphenol A Epoxy Vinyl Ester	K022	Versions are available to achieve ASTM E84 Class I and Class II flame spread. Excellent resistance to both acidic and alkaline environments. Provides exceptional thermal and mechanical properties.	112 / 234	5.4	39	No
	K026	Can meet ASTM E84 Class I flame spread and smoke development without antimony trioxide. Excellent resistance to both acidic and alkaline environments. Provides exceptional thermal and mechanical properties.	119 / 246	4	38	No
Fire Retardant Brominated Epoxy Novolac Vinyl Ester	K095	Can meet ASTM E84 Class I flame spread and smoke development without antimony trioxide. Excellent resistance to acidic and mild alkaline environments. Performs well in a wide range of acidic oxidants and solvents. Suitable for elevated temperatures.	143 / 289	3.6	35	No
Fire Retardant Brominated Isophthalic Polyester	K733	Versions are available to achieve ASTM E84 Class I flame spread with or without antimony trioxide. Exhibits mild corrosion resistance to acidic environments.	93 / 200	2.2	39	No
Fire Retardant Chloroendic Acid Polyester	K190	For high temperature applications and demanding chemical environments such as hot wet chlorine and oxidizing chemicals. Can meet ASTM E 84 Class II Flame Spread and Class 1 smoke development with the addition of 3% antimony trioxide.	138 / 280	2.4	39	No

SPECIALTY RESINS

NSF/ANSI 61 Certified Bisphenol A Epoxy Vinyl Ester	F010-H20B / F010-H20M	Vipel F010-H20 series of resins are certified to NSF/ANSI 61 standard for use in potable water applications. Both the BPO (B) and MEKP (M) cure versions have been certified for fabricating tanks 25 gallons or greater and pipes one inch in diameter or greater. When these products are used as directed, the fabricator does not need to perform additional testing to manufacture NSF / ANSI 61 compliant coatings. The Vipel F010-H20B version can also be used for sodium hypochlorite containment.	120 / 248	6.2	39	Yes
Elastomeric Bisphenol A Epoxy Vinyl Ester	F017	Designed as a primer for bonding fiberglass laminates to steel, concrete and other substrates. Exhibits improved interlaminar adhesion and can be used to manufacture composites with extra flexibility.	93 / 199	9.1	40	Yes
Isophthalic Neopentyl Glycol Polyester	F707-PVA	PVC bonding resin with broad chemical resistance at moderate temperatures.	78 / 173	3.7	48	Yes



AOC Aliancys Americas Headquarters
955 Highway 57 / Collierville, TN 38017 / USA
+1 901.854.2800 / info@aocaliancys.com

www.aocaliancys.com  [@aocresins](https://twitter.com/aocresins)

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SALES CONTACTS

North America
+1 866.319.8827
northamerica@aocaliancys.com

Latin America
+1 863.815.5016
latinamerica@aocaliancys.com

Europe
+41 52.644.1212
inquiry.europe@aocaliancys.com

China
+86 25.8549.3888
inquiry.china@aocaliancys.com

Middle East and Africa
+41 52.644.1212
inquiry.middleeastafrika@aocaliancys.com

India
+91 976.549.9893
inquiry.india@aocaliancys.com

Asia Pacific
+41 52.644.1212
inquiry.asia@aocaliancys.com