



**Your Formula for Success**  
RESINS | GEL COATS | COLORANTS

## VIPEL® F737-P SERIES POLYESTER RESIN



# Product Information

## RESILIENT ISOPHTHALIC POLYESTER RESIN

### Typical Cast Mechanical Properties <sup>1</sup>

Test	Unit of Measure	Nominal	Test Method
Tensile Strength	psi/MPa	12,400/85.5	ASTM D638
Tensile Modulus	psi/GPa	490,000/3.4	ASTM D638
Tensile Elongation	%	4.0	ASTM D638
Flexural Strength	psi/MPa	20,400/141	ASTM D790
Flexural Modulus	psi/GPa	570,000/3.9	ASTM D790
Heat Distortion Temp.	°F/°C@264 psi	197/92	ASTM D648
Izod Impact	ft-lbs/inch of notch	4.2	ASTM D4812
Barcol Hardness		39	ASTM D2583

### Typical Liquid Properties<sup>2</sup>

VERSIONS	MEKP	%	GT	Gel to Peak	Peak Exotherm °F/°C	Visc	SP	rpm	cps	TI	Styrene %
F737-PAA-00	TRIG K90	2.7 <sup>3</sup>	3.75	6	415/213	LV	3	60	180	-	46
F737-PTA-20	MEKP 925	1.25	20	7	412/211	LV	3	60	440	2.2+	47
F737-PTB-20 <sup>2</sup>	MEKP 925	1.25	20	16	379/193	LV	3	60	440	2.2	46
F737-PTC-20 <sup>1</sup>	MEKP 925	1.25	20	13	379/193	LV	3	60	440	2.2	43
F737-PTE-37	MEKP 925	1.25	37	10	365/185	LV	3	60	650	2	42
F737-PTF-20 <sup>1</sup>	MEKP 925	1.25	20	12	388/198	LV	3	60	450	2.7	43
F737-PTT-30	M-50	1.25	30	13	372/189	LV	3	60	425	2.0	49
F737-PTT-40	M-50	1.25	40	17	363/184	LV	3	60	425	2.0	49

- 1) Pigmented White
- 2) Blue Dye
- 3) SPI Gel time, 0.18% cobalt 10%, 0.1% DMA & 2.7% Trigonox K90

\*Typical properties are not to be construed as specifications.

### DESCRIPTION

AOC's Vipel F737-P series is a resilient isophthalic polyester resin with excellent mechanical properties. Vipel F737-P resins are used extensively in grating and in the construction of large diameter water pipes for transporting water to and from power stations. Vipel F737-P resins can be adapted for a variety of fabrication processes.

### BENEFITS

#### Internationally Recognized

AOC's Vipel F737-P series resins have been used in many corrosion resistant applications such as grating and water pipes, etc.

#### Corrosion Resistance

This resin provides excellent corrosion resistance when used in contact with inorganic and organic acids. Refer to AOC's "Corrosion Resistant Resin Guide" for corrosion resistance information or for questions regarding suitability of a resin to any particular chemical environment contact AOC.

#### Versatile

Suitable for various fabricating methods such as hand lay-up, spray-up, filament winding, etc.

#### Food and Drug

All resins in this datasheet are manufactured from raw materials that are listed in FDA regulation Title 21 CFR 177.2420. It is the fabricator's responsibility to also be sure that the final composite is well cured. All composites used for FDA applications should be post cured at 180° F/82° C for at least 4 hours. After post curing, laminate should be washed with soap and water and rinsed.

# VIPEL®

## F737-P SERIES RESILIENT ISOPHTHALIC POLYESTER RESIN



### PERFORMANCE GUIDELINES

A. Keep full strength catalyst levels between 1.0% - 2.0% of the total resin weight.

B. Maintain shop temperatures between 65 °F/18 °C and 90 °F/32 °C and humidity between 40% and 90%. Consistent shop conditions contribute to consistent gel times and will help the fabricator make a high quality part.

C. Sanding and/or grinding is recommended if a secondary bond is applied to a laminate that was made with a resin containing wax.

### STORAGE STABILITY

This product is stable for three months from the date of manufacture when stored in the original containers, away from direct sunlight or other UV light sources and at or below 77 °F/25 °C.

Storage stability of two months or less should be anticipated if the storage temperature exceeds 86 °F/30 °C.

After extended storage, some drift may occur in the product viscosity and gel time.

Storage in plastic totes made out of materials such as polyethylene (PE) or polypropylene (PP) in particular translucent PE/PP will accelerate gel formation and result in a significantly reduced storage stability.

Storage of this resin outdoors in translucent plastic totes may reduce the storage stability to only a few weeks. AOC cannot assume responsibility for gel formation under these storage conditions.

### SAFETY

See the appropriate Safety Data Sheet for guidelines.

### ISO 9001:2008 CERTIFIED

The Quality Management Systems at every AOC manufacturing facility have been certified as meeting ISO 9001:2008 standards. This certification recognizes that each AOC facility has an internationally accepted model in place for managing and assuring quality. We follow the practices set forth in this model to add value to the resins we make for our customers.

### FOOTNOTES

(1.) Based on tests of the base resin with 40% styrene at 77 °F/25 °C and 50% relative humidity. All tests performed on unreinforced cured resin castings. Thixotropic components, if applicable, are excluded from casting samples. Castings were prepared using 1% BPO and post cured 1 hour at 93 °C, 1 hour at 116 °C, and 2 hours at 138 °C.

(2) The gel times shown are typical but may be affected by catalyst, promoter, inhibitor concentration, resin, mold, and shop temperature. Variations in gelling characteristics can be expected between different lots of catalysts and at extremely high humidities. Pigment and/or filler can retard or accelerate gelation. It is recommended that the fabricator check the gelling characteristics of a small quantity of resin under actual operating conditions prior to use.



Your Formula for Success  
RESINS | GEL COATS | COLORANTS

**AOC World Headquarters**  
955 Highway 57 East, Collierville, TN 38017

+01 901.854.2800  
[AOC-Resins.com](http://AOC-Resins.com)

Pub. F737-P Series NA  
Effective Date: April 2018  
Copyright © 2018

### SALES CONTACTS

**NORTH AMERICA**  
Toll free: +1 866 319 8827  
[northamerica@aoc-resins.com](mailto:northamerica@aoc-resins.com)

**LATIN AMERICA**  
+01 863 815 5016  
[latinamerica@aoc-resins.com](mailto:latinamerica@aoc-resins.com)

**MIDDLE EAST**  
+44 1206 390415  
[middleeast@aoc-resins.com](mailto:middleeast@aoc-resins.com)

**EUROPE**  
+44 1206 390415  
[europa@aoc-resins.com](mailto:europa@aoc-resins.com)

**AOC UK LTD.**  
+44 01206 390400  
[salesUK@aoc-resins.com](mailto:salesUK@aoc-resins.com)

**INDIA**  
+44 1206 390415  
[india@aoc-resins.com](mailto:india@aoc-resins.com)

**ASIA/AUSTRALIA**  
+44 1206 390415  
[asia@aoc-resins.com](mailto:asia@aoc-resins.com)

AOC is a registered trademark of AOC, LLC.

The information contained in this data sheet is based on laboratory data and field experience. We believe this information to be reliable, but do 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. Our recommendations should not be taken as inducements to infringe any patent or violate any law, safety code or insurance regulation. This data sheet and its contents are the confidential and proprietary information of AOC and it may not be modified altered deconstructed or presented in any other manner without the explicit authorization of AOC and/or its legal counsel.