



Your Formula for Success
RESINS | GEL COATS | COLORANTS

VIPEL® F764 SERIES POLYESTER RESIN



Product Information

HIGH CROSS-LINKED ISOPHTHALIC POLYESTER RESIN

Typical Cast Mechanical Properties¹

Test	Unit of Measure	Nominal	Test Method
Tensile Strength	psi/MPa	10,100/70	ASTM D638 / ISO 527-1
Tensile Modulus	psi/GPa	510,000/3.5	ASTM D638 / ISO 527-1
Tensile Elongation	%	2.3	ASTM D638 / ISO 527-1
Flexural Strength	psi/MPa	17,800/122	ASTM D 790 / ISO 178
Flexural Modulus	psi/GPa	560,000/3.9	ASTM D 790 / ISO 178
Heat Distortion Temp.	°F/°C@264 psi	282/139	ASTM D648 / ISO 75-A
Barcol Hardness		51	ASTM D2583 / EN 59

DESCRIPTION

AOC's Vipel F764 Series are high cross-linked isophthalic polyester resins.

APPLICATION

AOC's Vipel F764 Series resins were developed to meet the demanding requirements of underground petroleum storage tanks that contain oxygenated fuels.

BENEFITS

UL Recognition

AOC's Vipel F764 Series resins are recognized by UL for meeting the requirements of UL 1316 and UL 1746 Part II and Part III.

Corrosion Resistance

Vipel F764 Series resins provide excellent corrosion resistance when used in contact with inorganic and organic acids. Solvent resistance is field-proven for many fuels including gasoline, kerosene, heating oil and crude oils. 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.

Typical Liquid Properties²

VERSIONS	Viscosity cps	Thix Index	Gel Time Min	Gel to Peak Min	Peak Exotherm (°F/°C)	Specific Gravity	% Styrene Content
F764-BBD-00	400 ¹	NA	20 ⁹	10	414/212	1.09	42
F764-BTX-00	600 ¹	3 ²	20 ³	10	331/166	1.08	44
F764-PTA-27	600 ⁴	2 ⁵	27 ⁶	16	425/218	1.07	45
F764-PTH-20	500 ⁷	2 ⁵	20 ⁸	17	374/190	1.07	44

NA- Not applicable

1) 77°F/25°C Brookfield LV viscosity spindle #2 at 30 rpm

2) 77°F/25°C 3/30 Thix Index

3) 77°F/25°C Gel time with 0.3% cobalt 6% and 1.5% MEKP-900

4) 77°F/25°C Brookfield RV viscosity spindle #2 at 20 rpm

5) 77°F/25°C 2/20 Thix Index

6) 77°F/25°C Gel time with 1.0% MEKP-925H

7) 77°F/25°C Brookfield LV viscosity spindle 3 at 60 rpm

8) 77°F/25°C Gel time with 1.5% MEKP-900

9) 77°F/25°C Gel time with 0.25% cobalt 6% and 1.25% MEKP

Typical properties are not to be construed as specifications.



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 25°C (77°F). Storage stability of two months or less should be anticipated if the storage temperature exceeds 30°C (86°F).

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

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

Pub. F764 Series NA
Effective Date: Mar. 2017
Copyright © 2017

SALES CONTACTS

NORTH AMERICA

Toll free: +1 866 319 8827
northamerica@aoc-resins.com

LATIN AMERICA

+01 863 815 5016
latinamerica@aoc-resins.com

MIDDLE EAST

+44 1206 390415
middleeast@aoc-resins.com

EUROPE

+44 1206 390415
europe@aoc-resins.com

AOC UK LTD.

+44 01206 390400
salesUK@aoc-resins.com

INDIA

+44 1206 390415
india@aoc-resins.com

ASIA/AUSTRALIA

+44 1206 390415
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.