

# Vipel® F764-BTX-00

Polyester Alloy

AOC, L.L.C.

## Message:

Vipel® Corrosion High Cross-Linked, Isophthalic Polyester Resin

AOC's Vipel® F764-PT series is a high cross-linked isophthalic polyester resin. Vipel F764 series resin are recognized by underwriters laboratories for meeting the requirements of UL 1316 and UL 1746 Part II and Part III. AOC's Vipel® F764-PT series resins were developed to meet the demanding requirements of underground petroleum storage tanks that contain oxygenated fuels.

UL Recognition

AOC's Vipel® F764-PT 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-PT 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.

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 for at least 4 hours. After post curing it should be washed with soap and water and rinsed.

| General Information |                            |                   |             |
|---------------------|----------------------------|-------------------|-------------|
| Features            | Acid Resistant             |                   |             |
|                     | Crosslinkable              |                   |             |
|                     | Food Contact Acceptable    |                   |             |
|                     | Good Corrosion Resistance  |                   |             |
|                     | Isophthalic                |                   |             |
|                     | Solvent Resistant          |                   |             |
| Uses                | Coating Applications       |                   |             |
|                     | Filaments                  |                   |             |
|                     | Fuel Tanks                 |                   |             |
| Agency Ratings      | FDA 21 CFR 177.2420        |                   |             |
|                     | UL 1316                    |                   |             |
|                     | UL 1746 Part II & Part III |                   |             |
| Forms               | Liquid                     |                   |             |
| Processing Method   | Filament Winding           |                   |             |
|                     | Hand Lay-up                |                   |             |
|                     | Spraying                   |                   |             |
| Physical            | Nominal Value              | Unit              | Test Method |
| Specific Gravity    | 1.08                       | g/cm <sup>3</sup> |             |
| Styrene Content     | 44                         | %                 |             |

|   |   |      |             |
|---|---|------|-------------|
| Exotherm  |   |      |             |
| Gel to Peak   | 10.0  | min  |             |
| Peak  | 166   | °C   |             |
| Gel Time (25°C) <sup>1</sup>                            | 20.0  | min  |             |
| Thixotropic Index (25°C) <sup>2</sup>                   | 3.00  |      |             |
| Hardness  | Nominal Value                               | Unit | Test Method |
| Barcol Hardness   | 51  |      | ASTM D2583  |
| Mechanical  | Nominal Value                               | Unit | Test Method |
| Tensile Modulus   | 3520  | MPa  | ASTM D638   |
| Tensile Strength (Yield)                                | 69.6  | MPa  | ASTM D638   |
| Tensile Elongation (Break)                              | 2.3   | %    | ASTM D638   |
| Flexural Modulus  | 3860  | MPa  | ASTM D790   |
| Flexural Strength                                       | 123   | MPa  | ASTM D790   |
| Thermal   | Nominal Value                               | Unit | Test Method |
| Deflection Temperature Under Load (1.8 MPa, Unannealed) | 139   | °C   | ASTM D648   |
| Thermoset   | Nominal Value                               | Unit |             |
| Thermoset Mix Viscosity <sup>3</sup> (25°C)             | 600   | cP   |             |
| Post Cure Time (82°C)                                   | 4.0   | hr   |             |
| NOTE  |   |      |             |
| 1.  | Gel time with 0.3% cobalt 6% and 1.5% MEKP  |      |             |
| 2.  | 3/30 Thix Index                             |      |             |
| 3.  | Brookfield LV viscosity spindle 2 at 30 rpm |      |             |

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