# Vipel® F701-PTT-25

Polyester Alloy

AOC, L.L.C.

## Message:

Vipel Corrosion Resistant Isophthalic Polyester Resin
AOC's Vipel F701 series resins are high molecular weight, two stage isophthalic, unsaturated polyester resin with the wet out, cure and handling characteristics of general purpose resins.
They have an excellent shelf life and are ideal for filament winding and spray-up. A few selected resins are listed below including the high viscosity base resin,Vipel F701-FHG-00.
Corrosion resistance
AOC's Vipel F701 series resins provides excellent corrosion resistance when used in contact with inorganic and organic acids. Solvent resistance is field-proven for many petroleum
products such as 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/82°C for at least 4 hours. After post curing it should be washed with soap and water and rinsed.

| General Information | |
|---|---|
| Features | Acid Resistant |
| | Food Contact Acceptable |
| | Good Corrosion Resistance |
| | High Molecular Weight |
| | Isophthalic |
| | Solvent Resistant |
| Uses | Coating Applications |
| | Filaments |
| Agency Ratings | FDA 21 CFR 177.2420 |
| Forms | Liquid |
| Processing Method | Filament Winding |
| | Hand Lay-up |
| | Spraying |

| Physical | Nominal Value | Unit | Test Method |
|---|---|---|---|
| Specific Gravity | 1.08 | g/cm³ | |
| Styrene Content [1] | 47 | % | |
| Exotherm | | | |
| Gel to Peak | 13.0 | min | |
| Peak | 188 | °C | |
| Gel Time (25°C) [2] | 25.0 | min | |

| | | | |
|---|---|---|---|
| Thixotropic Index [3] | 2.00 | | |
| Hardness | Nominal Value | Unit | Test Method |
| Barcol Hardness | 43 | | ASTM D2583 |
| Mechanical | Nominal Value | Unit | Test Method |
| Tensile Modulus | 3790 | MPa | ASTM D638 |
| Tensile Strength | 83.4 | MPa | ASTM D638 |
| Tensile Elongation (Break) | 2.8 | % | ASTM D638 |
| Flexural Modulus | 4210 | MPa | ASTM D790 |
| Flexural Strength | 127 | MPa | ASTM D790 |
| Thermal | Nominal Value | Unit | Test Method |
| Deflection Temperature Under Load (1.8 MPa, Unannealed) | 107 | °C | ASTM D648 |
| Thermoset | Nominal Value | Unit | |
| Thermoset Mix Viscosity [4] (25°C) | 600 | cP | |
| Post Cure Time (82°C) | 4.0 | hr | |
| NOTE | | | |
| 1. | HAP Content | | |
| 2. | Gel time with 1.1% MEKP | | |
| 3. | 2/20 rpm Thix Index | | |
| 4. | RV viscosity spindle 2 at 20 rpm | | |



Recommended distributors for this material

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