Vipel® F701-FBN-28

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	1.06	g/cm³	
Styrene Content	48	%	
Exotherm			
Gel to Peak	10.0	min	
Peak	199	°C	
Gel Time (25°C) ¹	28.0	min	

Thixotropic Index ²	2.50		
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
	107 Nominal Value	°C Unit	ASTM D648
MPa, Unannealed)		-	ASTM D648
MPa, Unannealed) Thermoset	Nominal Value	Unit	ASTM D648
MPa, Unannealed) Thermoset Thermoset Mix Viscosity ³ (25°C)	Nominal Value 550	Unit cP	ASTM D648
MPa, Unannealed) Thermoset Thermoset Mix Viscosity ³ (25°C) Post Cure Time (82°C)	Nominal Value 550	Unit cP	ASTM D648
MPa, Unannealed) Thermoset Thermoset Mix Viscosity ³ (25°C) Post Cure Time (82°C) NOTE	Nominal Value 550 4.0	Unit cP	ASTM D648

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