

# Vipel® F085-BBB-00

Vinyl Ester

AOC, L.L.C.

## Message:

Vipel Corrosion Resistant Epoxy Novolac, Vinyl Ester Resin

The Vipel F085 series is an epoxy novolac vinyl ester resin dissolved in styrene. The Vipel F085 series is ideally suited for applications where outstanding mechanical properties and resistance to chemicals, oxidation and heat are required.

### Corrosion resistance

The epoxy novolac backbone chemistry provides resistance to acids and bases and has superior resistance to many organic solvents. Vipel F085 series is generally resistant to liquids and vapors at higher temperatures than standard bisphenol-A epoxy vinyl ester resins.

The Vipel F085 series is well suited for use in the field of chlorine-alkali electrolysis. 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.

### Mechanical Properties

The Vipel F085 series is suitable for moldings that are subjected to particularly high static and dynamic loads. It is resistant to internal stress cracking under high loading.

### Versatile

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

General Information			
Features	Acid Resistant		
	Base Resistant		
	Good Chemical Resistance		
	Good Corrosion Resistance		
	High ESCR (Stress Crack Resist.)		
	High Heat Resistance		
	Oxidation Resistant		
	Solvent Resistant		
Uses	Filaments		
Forms	Liquid		
Processing Method	Filament Winding		
	Hand Lay-up		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.07	g/cm <sup>3</sup>	
Styrene Content	38	%	
Exotherm			
Gel to Peak	6.0	min	
Peak	204	°C	
Gel Time (25°C) <sup>1</sup>	12.0	min	
Hardness	Nominal Value	Unit	Test Method
Barcol Hardness	44		ASTM D2583
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	3720	MPa	ASTM D638

Tensile Strength (Yield)	77.2	MPa	ASTM D638
Tensile Elongation (Break)	3.3	%	ASTM D638
Flexural Modulus	3720	MPa	ASTM D790
Flexural Strength	148	MPa	ASTM D790
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (1.8 MPa, Unannealed)	149	°C	ASTM D648
Thermoset	Nominal Value	Unit	
Thermoset Mix Viscosity <sup>2</sup> (25°C)	200	cP	
NOTE			

1. Gel time with 0.3% cobalt 6%, 0.05% DMA and 1.5% MEKP
2. Brookfield RV viscosity spindle 2 at 20 rpm

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