

# Vipel® K190-BFC-45

Polyester Alloy

AOC, L.L.C.

## Message:

Fire Retardant Chlorendic Polyester Resin

Vipel K190 series is a thixotropic chlorendic polyester resin designed for fire resistant and corrosion resistant applications. K190 series resin is designed to be used in demanding chemical environments such as hot wet chlorine and oxidizing chemicals.

Flame/Smoke Resistance

Vipel K190-B series resin meet ASTM E 84 Class II when 3.0% antimony trioxide is added.

Heat Resistance

Vipel K190-B series is designed for high temperature applications.

Versatile

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

Corrosion Resistance

Vipel K190 is highly resistant to a number of chemical environments. 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.

General Information			
Features	Flame Retardant		
	Good Corrosion Resistance		
	High Heat Resistance		
	Low Smoke Emission		
	Thixotropic		
Uses	Filaments		
Forms	Liquid		
Processing Method	Filament Winding		
	Hand Lay-up		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.15	g/cm <sup>3</sup>	
Styrene Content	39	%	
Flame Spread Index - 3% Antimony Trioxide	35.0		ASTM E84
Smoke Developed - 3% Antimony Trioxide	445		ASTM E84
Exotherm			
Gel to Peak	11.0	min	
Peak	193	°C	
Gel Time (25°C) <sup>1</sup>	46.0	min	
Thixotropic Index <sup>2</sup>	2.50		
Hardness	Nominal Value	Unit	Test Method
Barcol Hardness	45		ASTM D2583
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	3400	MPa	ASTM D638

Tensile Strength (Yield)	58.6	MPa	ASTM D638
Tensile Elongation (Break)	2.4	%	ASTM D638
Flexural Modulus	3790	MPa	ASTM D790
Flexural Strength	110	MPa	ASTM D790
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (1.8 MPa, Unannealed)	138	°C	ASTM D648
Thermoset	Nominal Value	Unit	
Thermoset Mix Viscosity <sup>3</sup> (25°C)	350	cP	
NOTE			
1.	Gel time with 1.5% MEKP		
2.	6/60 rpm Thix Index		
3.	Brookfield LV viscosity spindle 3 at 60 rpm		

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#### Recommended distributors for this material

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