

Derakane® Momentum 411-350

Vinyl Ester

Ashland Performance Materials

Message:

DERAKANE MOMENTUM 411-350 epoxy vinyl ester resin is based on bisphenol-A epoxy resin and provides resistance to a wide range of acids, alkalis, bleaches, and organic compounds for use in many chemical processing industry applications. DERAKANE MOMENTUM resins are a new generation of resins that can be used to improve fabrication efficiency and product quality. Their lighter color makes defects easier to see and correct while the resin is still workable. The resin's improved reactivity properties often permit an increase in the lay-up thickness per session. The longer stability provides additional flexibility to fabricators in storage and handling.

APPLICATIONS AND USE

This resin is suitable for fabricating FRP storage tanks, vessels, ducts, and on-site maintenance projects, particularly in chemical processing and pulp and paper operations. DERAKANE MOMENTUM 411-350 resin is designed for ease of fabrication using hand lay-up, spray-up, filament winding, compression molding and resin transfer molding techniques, pultrusion and molded grating applications. An alternate viscosity, optimized for some vacuum infusion processes, is available as DERAKANE MOMENTUM 411-200 resin.

General Information			
Features	Good corrosion resistance		
	alkali resistance		
	acid resistance		
	Good toughness		
	Compliance of Food Exposure		
Uses	Container		
	Water tank		
Agency Ratings	FDA 21 CFR 177.2420		
Forms	Liquid		
Processing Method	Filament power winding		
	pultrusion		
	Hand coating		
	Resin transfer molding		
	Compression molding		
Physical	Nominal Value	Unit	Test Method
Density	1.14	g/cm ³	ISO 1183
Solution Viscosity	370	mPa · s	
Styrene Content	45	%	
Volume Shrinkage	7.8	%	
Hardness	Nominal Value	Unit	Test Method
Barcol Hardness	35		ASTM D2583
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
--	3170	MPa	ASTM D638

--	3200	MPa	ISO 527-2
Tensile Strength			
--	82.7	MPa	ASTM D638
--	86.0	MPa	ISO 527-2
Tensile Elongation (Yield)	5.0 - 6.0	%	ASTM D638, ISO 527-2
Flexural Modulus			
--	3380	MPa	ASTM D790
--	3400	MPa	ISO 178
Flexural Strength			
--	152	MPa	ASTM D790
--	150	MPa	ISO 178
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
1.8 MPa, not annealed	104	°C	ASTM D648
1.8 MPa, not annealed	105	°C	ISO 75-2/A
Glass Transition Temperature			
--	121	°C	ASTM D3418
--	120	°C	ISO 11357-2
Additional Information	Nominal Value	Unit	

Typical properties of a cured casting at 25°C.

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