

Derakane® 470HT-400

Vinyl Ester

Ashland Performance Materials

Message:

DERAKANE 470HT-400 epoxy vinyl ester resin is a novolac-epoxy based resin, designed to provide maximum chemical resistance in combination with superior temperature performance. DERAKANE 470HT-400 resin shows outstanding resistance to strong acids, oxidizing media and organic solvents over a wide temperature range.

APPLICATIONS AND USE

DERAKANE 470HT-400 resin is the preferred choice for applications with high operating/upset temperatures. This resin is designed for ease of fabrication using hand lay-up, spray-up, filament winding, compression molding and resin transfer molding techniques.

DERAKANE 470HT-400 resin has a proven track record with over almost 2 decades successful use for chimney liners, quench vessels, and ducting where high temperature requirements are needed.

General Information			
Features	Solvent resistance		
	Good heat aging resistance		
	Good chemical resistance		
	Heat resistance, high		
	acid resistance		
Uses	Lining		
	Container		
Forms	Liquid		
Processing Method	Filament power winding		
	Hand coating		
	Resin transfer molding		
	Compression molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.17	g/cm ³	ASTM D792, ISO 1183
Solution Viscosity	430	mPa · s	
Styrene Content	33	%	
Volume Shrinkage	8.3	%	
Hardness	Nominal Value	Unit	Test Method
Barcol Hardness	40		ASTM D2583
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
--	3520	MPa	ASTM D638
--	3500	MPa	ISO 527-2
Tensile Strength			
--	82.7	MPa	ASTM D638

--	80.0	MPa	ISO 527-2
Tensile Elongation (Yield)	3.0	%	ASTM D638, ISO 527-2
Flexural Modulus			
--	3520	MPa	ASTM D790
--	3500	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	182	°C	ASTM D648
1.8 MPa, not annealed	180	°C	ISO 75-2/A
Glass Transition Temperature			
--	193	°C	ASTM D3418
--	195	°C	ISO 11357-2
Additional Information	Nominal Value	Unit	

Properties of clear casting at 25°C.

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