CRAFTECH®
INDUSTRIES, INC.

Chlorinated Polyvinyl Chloride (CPVC)

KEY FEATURES

- Excellent Corrosion Resistance at Elevated Temperatures
- Easy to Machine
- Great Fire Resistance
- Good Chemical Resistance

DESCRIPTION

Chlorinated Polyvinyl Chloride is readily workable, including machining, welding, and forming. Because of its excellent corrosion resistance at elevated temperatures, CPVC is ideally suited for self-supporting constructions where temperatures up to 200°F (93°C) are present. The ability to bend, shape, and weld CPVC enables its use in a wide variety of process applications including tanks, scrubbers, and ventilation systems. It exhibits excellent fire resistance, chemical resistance, and is readily available in sheets, rods, and tubing.

TYPICAL PROPERTY VALUES

	Properties	Condition	Units	Value	ASTM Test
Physical	Density		g/cm^3	1.52	D792
	Chemical Designation			CPVC	
	Filler				

	Properties	Condition	Units	Value	ASTM Test
Mechanical	Tensile Modulus	@ 73 °F	PSI	430,000	D638
	Tensile Strength @ Yld	@ 73 °F	PSI	8,200	D638
	Elongation @ Brk	@ 73 °F	%	27	D638
	Flexural Modulus	@ 73 °F	PSI	410,000	D790
	Izod (Charpy) Impact Strength	@ 73 °F	ft-lbs/in	1.6	D256
	Flexural Strength	@ 73 °F	PSI	15,000	D790
	Compressive Modulus	@ 73 °F	PSI	350,000	D790
	Compressive Strength	@ 73 °F, 10% strain	PSI	14,000	
	Rockwell Hardness	@ 73 °F	M (R) Scale	121	D785
	Coefficient of Friction	Static			
	Coefficient of Friction	Dynamic, 40PSI, 50 FPM			

	Properties	Condition	Units	Value	ASTM Test
Thermal	Heat Deflection Temperature	@ 66 PSI	°F		
	Service Temperature	Long Term	°F		
	Heat Deflection Temperature	@ 264 PSI	°F	217	D648
	Service Temperature	Intermittent	°F	200	
	Thermal Expansion (CLTE)		in/in/°F	$3.7*10^{-5}$	D696
	Specific Heat		BTU/lb-°F		
	Thermal Conductivity		BTU-in/hr-ft^2-°F	0.95	C177

	Properties	Condition	Units	Value	ASTM Test
Electrical	Surface Resistivity		ohms/square	$1.0*10^{14}$	D257
	Volume Resistivity		ohm-cm	$1.0*10^{15}$	D257
	Dielectric Constant	@60 Hz		3.7	D150
	Dielectric Strength		V/mil	1250	D149
	Dissipation Factor	@ 1 kHz .009-.017			

	Properties	Condition	Units	Value	ASTM Test
Other	Moisture Absorption	@ 24 hrs, 73 °F	%	0.04	D570
	Moisture Absorption	@ Saturation, 73 °F	%		
	Flammability	UL 94		V-O	UL94
	Food Grade			N	
	Relative Cost				

- The data stated above are typical values intended for reference and comparison purposes only.
- The data should not be used as a basis for design specifications or quality control.
- The information is provided as a guide to the best of our knowledge and given without obligation or liability.
- Testing under individual application circumstances is recommended