

**TYPICAL PROPERTIES OF CHLORINATED  
POLYVINYL CHLORIDE (CPVC)**

ASTM Test	Property	CPVC
PHYSICAL		
D792	<b>Specific gravity</b>	1.55 +/- 2
D792	<b>Specific volume</b> (in <sup>3</sup> /lb)	0.645
D570	<b>Water absorption</b> , 24 h, 1/8-in thk (%)	
	At 73°F	+0.03
	At 212°F	+0.55
MECHANICAL		
D638	<b>Tensile strength</b> (psi @ 73°F)	8,000
D638	<b>Tensile modulus</b> (psi @ 73°F)	360,000
D790	<b>Flexural strength</b> (psi @ 73°F)	15,100
D790	<b>Flexural modulus</b> (psi @ 73°F)	415,000
D695	<b>Compressive strength</b> (psi @ 73°F)	10,100
D695	<b>Compressive modulus</b> (psi @ 73°F)	196,000
D256	<b>Impact strength</b> , Izod (ft-lb/in of notch)	1.5
D785	<b>Hardness</b> , Rockwell	119
THERMAL		
C177	<b>Thermal conductivity</b> (Btu-in/hr-ft <sup>2</sup> -°F)	0.95
D696	<b>Coefficient of thermal expansion</b> (10 <sup>-5</sup> in/in-°F)	3.4
D648	<b>Heat distortion temperature</b> (°F)	217
ELECTRICAL		
D149	<b>Dielectric strength</b> (V/mil) Short time, 1/8-in thk	1,250
D150	<b>Dielectric constant</b> At 60 Hz, 30°F/-1°C	3.7
D257	<b>Volume resistivity</b> (ohm-cm) At 73°F, 50% RH	3.4x10 <sup>15</sup>
FLAMMABILITY		
UL 94	<b>Flammability rating</b>	V-O, 5VB, 5VA
—	<b>Flame spread</b>	0 ULC 15 ASTM E84
—	<b>Smoke generation</b>	5-30 ULC 9-169 ASTM E84
D2863	<b>Limiting oxygen index (LOI)</b>	60

**TYPICAL PROPERTIES OF CHLORINATED  
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ISO Test	Property	CPVC
PHYSICAL		
ISO1183	<b>Specific gravity</b>	1.55 +/- 2
ISO1183	<b>Specific volume</b> (cm <sup>3</sup> /g)	0.645
ISO62	<b>Water absorption</b> , 24 h, 3.1 mm thk (%)	
	At 23°C	+0.03
	At 100°C	+0.55
MECHANICAL		
ISO527	<b>Tensile strength</b> (MPa)	55.16
ISO527	<b>Tensile modulus</b> (MPa)	2,482
ISO178	<b>Flexural strength</b> (MPa)	104.1
ISO178	<b>Flexural modulus</b> (MPa)	2,861
ISO604	<b>Compressive strength</b> (MPa)	69.64
ISO604	<b>Compressive modulus</b> (MPa)	1,351
ISO180	<b>Notched Izod impact strength</b> (J/m)	80
ISO2039	<b>Hardness</b> , Rockwell	119
THERMAL		
ISO8302	<b>Thermal conductivity</b> (W/mK)	.14
ISO11359	<b>Coefficient of thermal expansion</b> (10 <sup>-4</sup> m/m-°C)	0.61
ISO75	<b>Heat distortion temperature</b> (°C)	103
ELECTRICAL		
IEC243	<b>Dielectric strength</b> (kV/mm) Short time, 3.1 mm thk	49.21
IEC250	<b>Dielectric constant</b> At 60 Hz, -1°C	3.7
IEC93	<b>Volume resistivity</b> (ohm-cm) At 21°C, 50% RH	3.4x10 <sup>15</sup>
FLAMMABILITY		
UL 94	<b>Flammability rating</b>	V-O, 5VB, 5VA
—	<b>Flame spread</b>	0 ULC 15 ASTM E84
—	<b>Smoke generation</b>	5-30 ULC 9-169 ASTM E84
D2863	<b>Limiting oxygen index (LOI)</b>	60