

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

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

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

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