

## Corzan® CPVC (Chlorinated Polyvinyl Chloride)

Corzan® CPVC is a high heat, corrosion resistant chlorinated polyvinyl chloride (CPVC) material. Because of its excellent corrosion resistance at elevated temperatures, it is ideally suited for self-supporting constructions where high temperatures are a concern. It can be used (depending on chemistry) up to 180° F.

Corzan® CPVC conforms to ASTM-D-1784 Class 23447 (formerly Type IV Grade 1) and is manufactured without fillers or plasticizers. It exhibits excellent fire properties UL-94V-0 and flame spread less than 20 per ASTM E-84. Corzan CPVC is a system approach which allows you, our customer (through numerous component manufacturers) to provide a totally integrated system, all produced from the same family of Corzan materials.

Machinable - CPVC can be machined, cut, routed and welded.

Flammability - CPVC is self-extinguishing and has a flame spread of less than 20.

Physical properties - CPVC has outstanding strength through a range of temperatures.

Impact - CPVC has excellent impact strength.

Chemical resistance - CPVC has excellent chemical resistance to acids and alkalis.

Property	ASTM Test Method	Units	Corzan® CPVC
<b>Physical</b>			
Specific Gravity	D792		1.47
Water Absorption Immersion, 24 hr.	D570	%	0.03
Rockwell Hardness	D785	R Scale	116
Cell Class	D1784		24446-B
<b>Mechanical</b>			
Izod Impact (Notched)	D256	ft-lb/in	9
Tensile Strength	D638	psi	7300
Flexural Strength	D790	psi	14,300
Flexural Modulus	D790	psi	361,000
Compressive Strength	D695	psi	10,100
Compressive Modulus	D 695	psi	196,000
<b>Thermal</b>			
Coefficient of Thermal Expansion	D696	in/in/°F	$3.86 \times 10^{-5}$
Thermal Conductivity	C177	BTU/in/hr/ft <sup>3</sup> /°F	0.95
Heat Distortion Temperature @ 264 psi	D648	°F	198
<b>Flammability Ratings</b>			
Flammability	UL94	V-0, 5VB, 5VA	0.062"
Flame Spread	E84		15
Smoke Developed	E84		70-125
Limiting Oxygen Index	D2863	%	60
<b>Electrical</b>			
Dielectric Strength	D147	V/mil	1250
Dielectric Constant	D150	60 Hz	3.70
Power Factor	D150	1000 HZ	0.007%
Volume Resistivity	D257	ohm/cm	$3.4 \times 10^{15}$

*NOTE: The information contained herein are typical values intended for reference and comparison purposes only. They should NOT be used as a basis for design specifications or quality control. Contact us for manufacturers' complete material property datasheets. All values at 73°F (23°C) unless otherwise noted.*