

TECHNICAL DATA SHEET

CPVC

(CHLORINATED POLYVINYL CHLORIDE)

CPVC reflects many of the characteristics and properties of its close relative, PVC. It is also very conducive to fabricating 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.

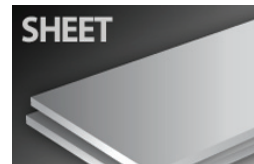
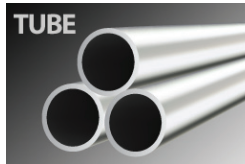
Benefits

Easily fabricated (machining, weld and formable)
 Corrosion resistance
 Excellent tensile and stiffness
 Low water absorption
 Self-extinguishing

Applications

Pumps
 Valves
 Seals
 Pipe systems
 Bearings
 Chemical tanks

SHAPES AVAILABLE



| TYPICAL PROPERTIES of PVC and CPVC | | |
|---|------------------------|------------------------|
| Property | PVC | CPVC |
| PHYSICAL | | |
| Density (lb/in ³) (g/cm ³) | 0.051 1.41 | 0.055 1.52 |
| Water Absorption, 24 hrs (%) | 0 | 0.04 |
| MECHANICAL | | |
| Tensile Strength (psi) | 7,500 | 8,200 |
| Tensile Modulus (psi) | 411,000 | 430,000 |
| Tensile Elongation at Break (%) | - | 27 |
| Flexural Strength (psi) | 12,800 | 15,000 |
| Flexural Modulus (psi) | 481,000 | 410,000 |
| Hardness | 115 (Rockwell R) | 121 (Rockwell R) |
| IZOD Notched Impact (ft-lb/in) | 1.0 | 1.6 |
| THERMAL | | |
| Coefficient of Linear Thermal Expansion (x 10 ⁻⁵ in./in./°F) | 6.1 | 3.7 |
| Heat Deflection Temp (°F / °C) at 264 psi | 176 / 80 | 217 / 103 |
| Melting Temp (°F / °C) | n.a. | n.a. |
| Max Operating Temp (°F / °C) | 140 / 60 | 200 / 93 |
| Thermal Conductivity (BTU-in/ft ² -hr-°F) (x 10 ⁻⁴ cal/cm-sec-°C) | 0.90 3.1 | 0.95 3.3 |
| Flammability Rating | V-0 | V-0 |
| ELECTRICAL | | |
| Dielectric Strength (V/mil) short time, 1/8" thick | 544 | 1250 |
| Dielectric Constant at 60 Hz | 3.2 | 3.7 |
| Dissipation Factor at 60 Hz | .0096 | - |
| Volume Resistivity (ohm-cm)at 50% RH | 5.4 x 10 ¹⁵ | 3.4 x 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.