











INDUSTRIAL EASY SPEC

PRODUCT	SIZE RANGE	STANDARDS *	APPLICATIONS
PROCESS PIPING SYSTEMS			
* Consult IPEX literature for individual product listings			
Xirtec [®] 140 PVC Schedule 40 & 80	1/4" - 24"		Designed to meet the temperature, pressure and flow requirements of piping systems used in chemical processes, and other industrial applications. Applications include: Plant chemical distribution lines, water and waste water, acid systems for refineries, pickling lines and plating shops, chlorine injections, chlorine dioxide and chloralkali plant piping, steel wire plant, irrigation systems, pharmaceutical, and waterworks etc.
Corzan [®] CPVC Schedule 40 & 80	1/2" - 16"		
Clear-Guard [™] Clear PVC Schedule 40	1/2" - 8"		Clear-Guard double containment for high purity piping, leak detection, agricultural & aquacultural, chemical processing/blending, healthcare/hospital use, laboratories, environmental, sight gauge assemblies, display/exhibits, and food and beverage processing.
Corzan [®] HP CPVC Schedule 80	1/2" - 8"		Chemical processing, semiconductor and electronics, water treatment, industrial manufacturing, mining, and power generation. Potable water, deck wash system, desalinization and chemical waste, black water, and brine ballast treatment.
Empure [™] High Purity PP Schedule 40 & 80	1/2" - 4"		Food processing, hospitals, laboratories, universities, biotechnology, research facilities, chemical manufacturing, photographic chemical processing, effluent treatment, water treatments, and pharmaceutical manufacturing.
Duraplus [™] ABS Industrial	3/8" - 12"		Chilled water/HVAC, Off shore applications, Mining and Secondary loop refrigeration.
DOUBLE CONTAINMENT SYSTEMS			
Guardian [™] Vinyl PVC & CPVC	PVC: Carrier 1/2" - 12" Containment 2" - 18" CPVC: Carrier 1/2" - 12" Containment 2" - 18"		Plant chemical distribution lines, water and wastewater, acid systems for refineries, pickling lines and plating shops, chlorine injection, chlorine dioxide and chloralkali plant piping, steel wire plants, battery manufacturing, bleach lines, alum and caustic handling systems, semiconductor, overhead piping for personnel/ property/equipment protection, and hazardous waste systems. Xirtec PVC and Corzan CPVC are the chosen materials for the Guardian systems.
Drain-Guard [™] PVC DWV	Carrier: 1-1/2" - 12" Containment 4" - 16"		Healthcare/Hospital Use, laboratory applications, high-tech and data storage environments (network & server rooms etc.), museums and libraries, historical sites, theaters, restaurants (public areas), and residential buildings. Xirtec is the chosen material for the Drain-Guard system.
Clear-Guard [™] PVC	PVC Sch 40 Carrier: 1/2" - 4" Containment 2" - 8"		Plant chemical distribution lines, pharmaceutical, semiconductor, water and wastewater, and overhead piping for personnel/ property/equipment protection. Each containment piping system shall consist of Xirtec PVC or Corzan CPVC primary piping system supported within a Clear-Guard Schedule 40 clear PVC secondary containment housing.
CustomGuard [®] (Dissimilar Materials)	FRP/Metals/Dissimilar: Carrier 1/2" - 20" Containment 2" - 26"		Plant chemical distribution lines, water and wastewater, acid systems for refineries, pickling lines and plating shops, battery manufacturing, alum and caustic handling systems, pharmaceutical, generator back-up, semiconductor, and hazardous waste systems. Custom-designed and fabricated double containment systems including dissimilar material.
Encase [™] Acid Waste PP	PP: Carrier 1-1/2" - 8" Containment 4" - 12"		Corrosive chemical waste for university laboratories, schools, hospitals and industrial plants, and pharmaceuticals facilities.
Centra-Guard [™] Low Point Leak Detection Monitoring System			Above-ground suspended pipeline applications with sensors housed in a saddle type clamp, underground pipeline systems with drip leg assembly.
IPEX PAL-AT Cable Leak Detection Monitoring System	NOT available in Canada		Ideal for buried double containment piping applications that require exact leak location.

PHYSICAL PROPERTIES

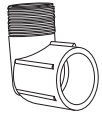
PVC (POLYVINYL CHLORIDE) CPVC (CHLORINATED POLYVINYL CHLORIDE)

PROPERTIES	MATERIALS			STANDARDS	
	PVC	CPVC (STANDARD)	CORZAN HP (HIGH PERFORMANCE)		CPVC (HIGH IMPACT)
Cell classification	12454	23447		24448	ASTM D1784
Specific gravity	1.42	1.50		1.51	ASTM D792
Tensile strength, psi at 73°F	7,000	7,500		7,320	ASTM D638
Modulus of elasticity tensile, psi at 73°F	400,000	380,000		423,000	ASTM D638
Flexural strength, psi	14,500	11,400		13,200	ASTM D790
Izod impact, ft.lbs./in. at 73°F, notched	0.65	2.0		10.0	ASTM D256
Compressive strength, psi	9,000	10,100		10,100	ASTM D695
Poisson's ratio	0.38	0.33		0.33	
Working stress, psi at 73°F	2,000	2,000		2,000	
Coefficient of thermal expansion in./in./°F (x 10 ⁻⁵)	3.0	3.8		3.4	ASTM D696
Linear expansion, in./10°F per 100' of pipe	0.36	0.44 - 0.46		0.41	
Maximum operating temperature under pressure	140°F (60°C)	200°F (93°C)		200°F (93°C)	
Deflection temperature under load, °F at 66 psi	173	n/a		n/a	ASTM D648
Deflection temperature under load, °F at 264 psi	160	212		239	ASTM D648
Thermal conductivity, BTU.in./hr.ft ² .°F	1.2	0.95		0.95	ASTM C177
Burning rate	Self extinguish	Self extinguish		Self extinguish	ASTM D635
Burning class	V-0	V-0		V-0	UL-94
Flash ignition, °F	730	900		900	
Limited oxygen index (%)	43	60		60	ASTM D2863-70
Water absorption, %, (24 hrs. at 73°F)	0.05	0.03		0.03	ASTM D570

* The properties listed in this table represent general material properties and should be used as a guideline only.

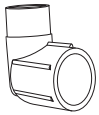
Dimension inches	Sch 40 WHITE Product Code	Universal Number
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90° Elbow Mpt x Soc



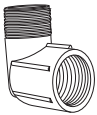
1/2	035500	410005
3/4	035501	410007
1	035502	410010
1 1/4	035503	410012
1 1/2	035504	410015
2	035505	410020

90° Street Elbow Spig x Soc



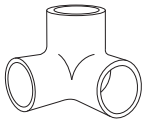
1/2	035544	409005
3/4	035545	409007
1	035546	409010
1 1/4	035547	409012
1 1/2	035548	409015
2	035549	409020

90° Elbow Mpt x Fpt



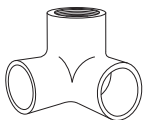
1/2	035552	412005
3/4	035553	412007
1	035554	412010
1 1/4	035555	412012
1 1/2	035556	412015
2	035557	412020

Side Outlet Elbow Soc x Soc x Soc



1/2	035498	413005
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Side Outlet Elbow Soc x Soc x Fpt



1/2	235033	414005
3/4	235034	414007
3/4 x 3/4 x 1/2	235035	414101
1 x 1 x 1/2	235036	414130

Dimension inches	Sch 40 WHITE Product Code	Universal Number
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Fabricated 60° Elbow Soc x Soc

6	125482	424060F
8	125484	424080F
10	125486	424100F
12	125488	424120F
14	125490	424140F
16	125492	424160F
18	125494	424180F
20	125495	424200F
24	125496	424240F

45° Elbow Soc x Soc



1/2	035481	417005
3/4	035482	417007
1	035483	417010
1 1/4	035484	417012
1 1/2	035485	417015
2	035486	417020
2 1/2	035487	417025
3	035488	417030
4	035489	417040
5	035490	417050
6	035491	417060
8	035492	417080
10	035926	417100
12	035927	417120

45° Elbow Soc x Sp



10	235876	423100
12	235877	423120

Fabricated 45° Elbow Soc x Soc



10	125470	417100F
12	125472	417120F
14	125474	417140F
16	125476	417160F
18	125478	417180F
20	125479	417200F
24	125480	417240F