PRINCE®

ONEFIT™

CPVC Industrial Piping Systems

Super resistance to corrosive chemicals,
high temperature at elevated pressures

Prince Onefit with Corzan® CPVC technology

Corzan®
MATERIAL & PIPING SOLUTIONS

INDEX

MANUFACTURING UNITS

State-of-the-art manufacturing units producing piping systems

ATHAL
(Silvassa) Year of Est.1995

DADRA
(Silvassa) Year of Est. 2000

KOLHAPUR
(Maharashtra) Year of Est. 2012

CHENNAI
(Tamil Nadu) Year of Est. 2012

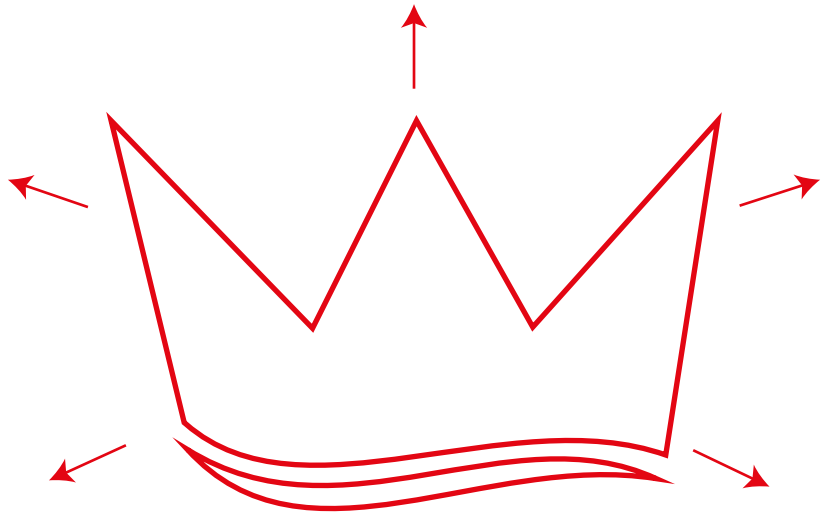
HARIDWAR
(Uttarakhand) Year of Est. 2008

JAIPUR
(Rajasthan) Year of Est. 2019

SANGAREDDY
(Telangana) Year of Est. 2021

COMPANY OVERVIEW

One of **India's largest integrated piping solutions**



Amongst **top 5** processors in India

8 Patented designs backed by robust R&D

9 Depots across India

Wide range of 7200+ SKUs

Strong legacy of more than **4 decades**

Comprehensive product portfolio **across polymers**

TECHNICAL COLLABORATION

Tooling holland
A global leader in plastic moulds manufacturing

PRODUCT COLLABORATION

Lubrizol
World's largest manufacturers and also the inventors of CPVC compound

FlowGuard Plus
WORLD'S NO.1 CPVC PLUMBING SYSTEMS

Corzan
MATERIAL & PIPING SOLUTIONS

Ostendorf Kunststoffe

HT safe

Skolan safe

hauraton

Awards & Certifications

most preferred BUILDING MATERIAL COMPANY (PIPES & FITTINGS) 2022

Green Building certification by the Indian Green Building Council (IGBC) for Jaipur Plant

Gold Award for Jaipur facility in February 2022 in 8th edition of National Awards for Manufacturing Competitiveness (NAMC) 2021, by IRIM

TÜVRheinland CERTIFIED ISO 9001:2015 ISO 14001:2015 ISO 45001:2018

TÜVRheinland CERTIFIED ISO 50001:2018

ETHOS

Greener Better Together

Prince Pipes is not about creating products that are different but providing solutions that make a difference. From our zero defect manufacturing process that involves using recycled plastic to designing and equipping our plants with solar panels and various other energy saving manufacturing techniques, our endeavour has always been to further bring down the emission levels. Our strong belief in the concept of ”better lasts longer” has not only helped us deliver premium quality products but also ensure lesser consumption. Together with our channel partners and plumbers, we are sure to leave a strong legacy for the generations to come.

PRINCE PIPES - A LEADER OF INDUSTRIAL PIPING SYSTEMS

Prince Pipes has a 30+ years legacy of being at the forefront of the piping industry as the only brand in India to produce industrial piping systems in three polymer categories - PPR, uPVC and CPVC.

Making Prince Pipes India's No. 1 manufacturer to have a 3 polymer solutions for the Industrial application.

Prince's vision extends beyond the domestic segment but also provides a complete range of solutions to the industrial segment by manufacturing trusted products like Greenfit PPR and Easyfit iN uPVC.

Introducing a revolutionary product, Prince Onefit with Corzan® CPVC technology in association with Lubrizol.

Lubrizol is a pioneer in safe and ultra-modern CPVC pipes technology. Lubrizol CPVC product is known globally as the cornerstone of performance par excellence. Lubrizol has always believed in providing indispensable industrial solutions to manufacturers and production engineers. Their patented corzan compound composition is chemical corrosion-resistant, heat-cold stable and highly durable.

Why Prince Onefit made with Corzan® CPVC Technology?

For decades, metal piping systems have dominated the piping sector, becoming the status quo for many industrial applications. However, these pipes have some significant shortcomings, since the chemicals encountered in the process industry aggressively corrode most metal equipment resulting in process leaks, flow restriction and ultimately premature failure. Moreover there is a high jobsite labour cost.

That's where Prince Onefit with Corzan® CPVC technology comes into play.

It is the solution that overcomes the drawbacks of metal piping system. Prince Onefit excels under conditions that could degrade and reduce the service life of many metals and other plastic materials. Prince Onefit is a high-pressure, high-temperature and high-impact strength CPVC industrial piping system for the transmission of chemical fluids made with superior compounds. Prince Onefit comes with a longer service life and also decreasing the minimum downtime enabling continuous production in process industry. It is the perfect solution for the harshest conditions.

Applicable Standards:

Prince Onefit made with Corzan® CPVC technology meets the performance requirements of following ASTM standards.

- ASTM D1784: Specification for Rigid Poly(Vinyl Chloride) Compounds and Chlorinated Poly(Vinyl Chloride) (CPVC) Compounds
- ASTM D2855: Standard Practice for Making Solvent Cemented Joints and Poly(Vinyl Chloride) (PVC) Pipe and Fittings
- ASTM F402: Standard Practice for Safe Handling of Solvent Cements, Primers, and Cleaners Used for Joining Thermoplastic Pipe and Fittings
- ASTM F437: Standard Specification for Threaded Chlorinated Poly(Vinyl Chloride) (CPVC) Plastic Pipe Fittings, Schedule 80
- ASTM F438: Standard Specification for Socket-Type Chlorinated Poly(Vinyl Chloride) (CPVC) Plastic Pipe Fittings, Schedule 40
- ASTM F439: Standard Specification for Chlorinated Poly(Vinyl Chloride) (CPVC) Plastic Pipe Fittings, Schedule 80
- ASTM F441: Standard Specification for Chlorinated Poly(Vinyl Chloride) (CPVC) Plastic Pipe, Schedules 40 and 80
- ASTM F493: Standard Specification for Solvent Cements for Chlorinated Poly(Vinyl Chloride) (CPVC) Plastic Pipe and Fittings
- ASTM F656: Standard Specification for Primers for Use in Solvent Cement Joints in Poly(Vinyl Chloride) (PVC) Plastic Pipe and Fittings

KEY FEATURES

- Made to meet high-temperature and high-pressure demands of most piping systems in industrial domain.
- Excellent resistance to broad range of corrosives, which makes it ideal for transmission of chemicals
- The industry's first and only SCH40/SCH80 piping system made from fully pressure rated materials
- Increased durability due to cell class of 24448 providing high impact strength and high distortion at 111°C

*Prince Onefit with Corzan® CPVC technology

ADVANTAGES

Faster and Safe Installation

Prince Onefit is light in weight, and it is approximately 1/8th the weight of comparably sized steel. Unlike conventional metal piping, no open flame or ignition sources must join the material, ensuring safety.

Reduced Installation Cost

Compound properties make CPVC easier to cut than metals, allowing for more efficient on-site fabrication. Also, the installation requires no complex tools, electricity or highly skilled labour, thereby reducing the installation cost.

Reduced Downtime

In industrial plants, downtime due to maintenance proves to be very costly. Due to corrosive chemicals and the most demanding process application, chances of leakage can arise, and rectification of the leakages will consume a lot of time. Prince Onefit CPVC provides the flexibility of easy installation in a short duration, reducing overall downtime resulting in cost savings. Moreover with this continuous production leads to increased productivity

Superior Chemical Resistance

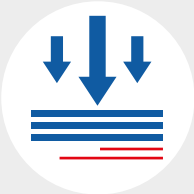
Prince Onefit is inactive to be attacked by strong acids, alkalis, fluids etc. It does not react with materials carried, eliminating all possibilities of contamination or chemical process changes and all dangers of clouding slugging or discolouration.

Superior Corrosion Resistance

Prince Onefit Industrial CPVC inherently offers superior resistance to corrosive chemicals, high temperatures, and even the harshest conditions. Prince Onefit CPVC pipe and fittings are inert to most acids, bases and salts, and aliphatic hydrocarbons. It can withstand up to 400+ chemical applications ensuring its superior performance and reliability.

Fluid Handling Properties

A significant advantage of Prince Onefit CPVC piping over metallic pipe is a smooth inner surface, which is resistant to scaling and fouling. It means that friction pressure losses in the fluid flow are minimised from the beginning and do not significantly increase as the system ages.



Higher Impact Resistance

The modulus of elasticity is a measure of a material's stiffness. Metal has a high modulus of elasticity, leading to increased rigidity. On the contrary, Prince Onefit CPVC absorbs shock from the impact due to its inherent flexibility.

Highest HDT Rating

Prince Onefit with Corzan® CPVC technology has the certification to the higher cell class of 24448 as defined by ASTM D1784. Hence, it offers HDT (Heat Distortion Temperature) rating at 111°C, the highest of any ASTM D1784 - compliant CPVC.

Outstanding Weatherability

Corzan® CPVC can withstand long-term exposure to the outside environment without any significant withering, which has been proved over the past 60 years with many outdoor installations, prolonged exposure to sunlight, rain and wind. The superior material properties of Prince Onefit CPVC helps to protect against the effects of UV radiation.

Longer Service life

Depending on usage and proper installation in the application area increase the service life of Prince Onefit CPVC. Due to its inherent properties, it will not rust, scale, and corrode, therefore ensuring an extended service life of 50 years (basis the usage of Prince Onefit pipes, fittings, and solvent).

APPLICATIONS

CHEMICAL PROCESSING

Chemical processing plants create some of the most challenging environments for industrial piping systems. The combination of aggressive chemicals and high temperatures can compromise the long-term integrity of most piping materials, causing corrosion, process leaks and premature failures that lead to costly replacements. Even the more expensive alloys, lined carbon steel, and non-metallic alternatives, such as HDPE and FRP, are challenged to provide a cost-effective, reliable solution.

Prince Onefit is inert to most acids, bases and salts, as well as aliphatic hydrocarbons. Due to its superior corrosion resistance, highly durable Prince Onefit piping solutions stand up to the immense challenges of chemical processing plants over the long-term better than any other piping material, metallic or non-metallic.

CHLOR-ALKALI PROCESSING INDUSTRY

Chlor-alkali plants create some of the most corrosive environments imaginable. The transport of harsh chemicals at extreme temperatures, in combination with the high voltage electrolysis process, can quickly compromise the integrity of most piping systems.

In fact, many facilities have been forced to choose whether to invest in expensive, exotic alloys or to face ongoing maintenance challenges and costly premature failures. Chemicals such as Sulphuric acid, Sodium hydrochloride, Hydrochloric acid, Chlorine gas etc generally attack carbon and stainless steel, significantly limiting its service life

Prince Onefit piping solutions stand up to the unique challenges of the chlor-alkali industry like few other piping materials can, providing facilities with a reliable and affordable solution.

MINERAL PROCESSING INDUSTRY

Piping used to convey chemical solutions in the mineral processing industry faces tough challenges. Whether the operation is extracting precious materials from the ground or processing raw materials after being excavated, the challenge to the long-term reliability of the piping system is significant. And, this challenge is only expected to increase as existing pits and mine sites are often extracting ores of lower concentrations from deeper in the Earth's crust, causing a shift in the chemistry of processed ores.

Highly corrosive chemicals typically used in mining operations, often at high temperatures, can wreak havoc on the integrity of most piping systems, creating ongoing maintenance challenges and costly, premature failures.

Corrosion, sedimentation, and crystallisation compromise the integrity of most metallic systems. Comparatively, Prince Onefit pipe and fittings offer superior resistance to most acids, bases and salts, and aliphatic hydrocarbons.

POWER GENERATION INDUSTRY

In the power generation industry, there are often few choices when it comes to specifying the product or material being used in plant processes. Selecting the correct piping solution directly increases operational efficiency, while minimising downtime and improving bottom-line performance.

Prince Onefit CPVC is used by all types of power generation plants, including nuclear, coal combined cycle and CHP plants. The material has a proven track record of providing reliable piping, ducting and liners that mitigate corrosion issues and prolong the life of a system.

Existing power plants often turn to Corzan® CPVC for emergency repairs because the piping is readily available and can be installed and tested quickly using mechanical couplings.

New power plants and plants looking to upgrade or replace existing systems rely on Corzan® CPVC because of its low installation costs and long-term, corrosion-free capabilities.

WASTEWATER TREATMENT PLANTS

Corrosion to pipes, valves and fittings caused by chemicals and microbes can greatly impact the bottom line at water and wastewater treatment plants.

For more than 20 years, Corzan® CPVC Industrial Systems-made from non-corrosive, high-performance chlorinated polyvinyl chloride (CPVC)-has provided an excellent balance of properties that improve reliability and confidence while reducing capital and life-cycle costs for water and wastewater treatment plants.

From primary wastewater treatment to wastewater odour control, Prince Onefit CPVC meets the demands of the process.

PRIMARY WASTEWATER TREATMENT

Prince Onefit pipes and fittings are ideal for primary wastewater treatment, as they are not susceptible to microbial corrosion and are resistant to commonly used chemicals, including ferrous chloride, ferric chloride, alum, and alkaline lime slurry systems that neutralise the acid generated during the nitrification of ammonia. Since it is resistant to scaling and fouling, Prince Onefit maintains its friction factor throughout its entire service life.

SECONDARY WASTEWATER TREATMENT

In this part of the process, piping is exposed to high concentrations of microorganisms when excessive biological growth washes out and collects in a clarifier. Byproducts of these microbes, including acids or hydrogen sulfide, or disinfectants and dechlorination chemicals, contribute to the corrosion of metallic piping systems. Prince Onefit Industrial piping stands up to both chemical and microbial corrosion, even when used to transport highly concentrated acids and caustic solutions used for pH control. It can also be used in outdoor applications, as it has excellent UV resistance and high heat tolerance.

ADVANCED WATER TREATMENT

Prince Onefit CPVC provides reliable performance even when exposed to cooling tower applications and handling nominal concentrations of methanol for biological denitrification. Prince Onefit pipe and fittings are pressure rated to 93°C, making them ideal for double-containment systems, which are often required to transport treatment chemicals underground.

WASTEWATER ODOUR CONTROL

With today's long list of odour control mandates, Corzan® CPVC Industrial Systems are a proven material used in both traditional wastewater applications and in scrubbers and ancillary equipment. Whether a plant is using sodium hydroxide and sodium hypochlorite in its wet air scrubbers at temperatures as high as 93°C, or metal chelating agents in a liquid redox process, Prince Onefit pipes and fittings offer the chemical resistance and superior high-temperature performance that wastewater odour control processes require.

BALL VALVES AND FLANGE

Industrial Ball Valve

Industrial Flanged Diaphragm Valve

Industrial Flanged Ball Valve

Industrial Butterfly Valve

Industrial Check Valve

Vanstone Flange

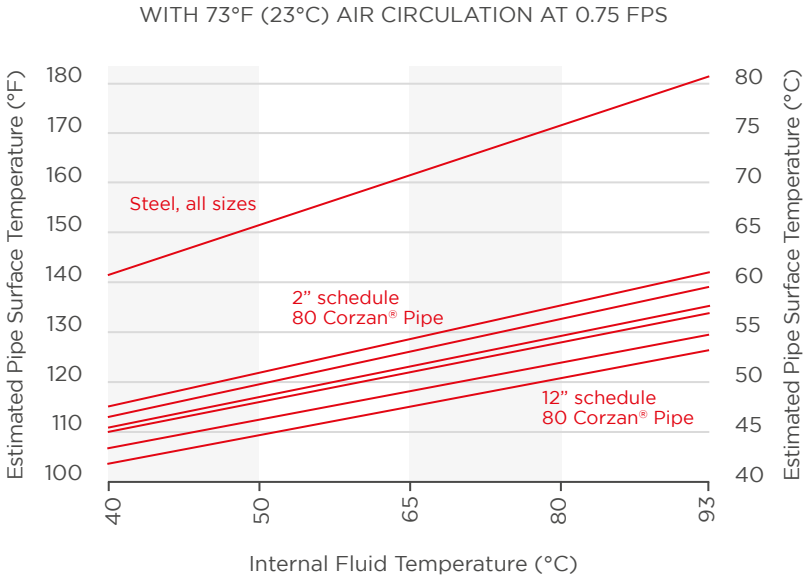
BASIC PHYSICAL PROPERTIES

PROPERTY	TEST	CONDITION	ENGLISH UNIT	SI UNITS
GENERAL			1.52 g/cm^3	
Specific Gravity	ASTM D792	73°F/23°C	.0105 ft^3/lb	
Specific Volume		73°F/23°C	0.03%	1.52 g/cm^3
Water Absorption	ASTM D570	73°F/23°C	0.55%	0.657 cm^3/g
Rockwell Hardness	ASTM D785	212°F/100°C	116	0.03%
Cell Class	ASTM D1784	73°F/23°C	24448-B	0.55%
MECHANICAL				
Izod Impact	ASTM D256	73°F/23°C	9.6 ft lbs/in o.n.	484 J/m o.n.
Tensile Strength	ASTM D638	73°F/23°C	7900 psi	55 N/mm^2
Tensile Modulus	ASTM D638	73°F/23°C	376,000 psi	2600 N/mm^2
Flexural Strength	ASTM D790	73°F/23°C	13,000 psi	90 N/mm^2
Flexural Modulus	ASTM D790	73°F/23°C	356,000 psi	2455 N/mm^2
Compressive Strength	ASTM D695	73°F/23°C	10,600 psi	73 N/mm^2
Compressive Modulus	ASTM D695	73°F/23°C	198,000 psi	1365 N/mm^2
THERMAL				
Coefficient of Thermal Expansion	ASTM D696		3.8x10$^-$5 in/in/°F 0.95 BTU in/hr/ft^2/°F	2.12x10$^-$5 m/m/K 0.137 W/m/K
Thermal Conductivity	ASTM C177		232°F	111°C
Heat Distortion Temperature@264psi	ASTM D648	73°F/23°C	0.21 BTU/lb °F	0.90 J/gK
*Heat Capacity	DSC	212°F/100°C	0.26 BTU/lb °F	1.10 J/gK
FLAMMABILITY				
Flammability Rating	UL94		V-O, 5VB, 5VA	
Flame Spread	ASTM E84		15	
Smoke Developed	ASTM E84		70-125	
Limiting Oxygen Index	ASTM D2863	0.062 in/0.157 cm	60%	
ELECTRICAL				
Dielectric Strength	ASTM D147		1250 V/mil	492,000 V/cm
Dielectric Constant	ASTM D150	60 Hz, 30°F/-1°C	3.7	3.7
Power Factor	ASTM D150	1000 Hz	0.01%	0.01%
Volume Resistivity	ASTM D257	73°F/23°C	3.4x1015 ohm/cm	3.4x1015 ohm/cm

QUALITY THAT SETS APART

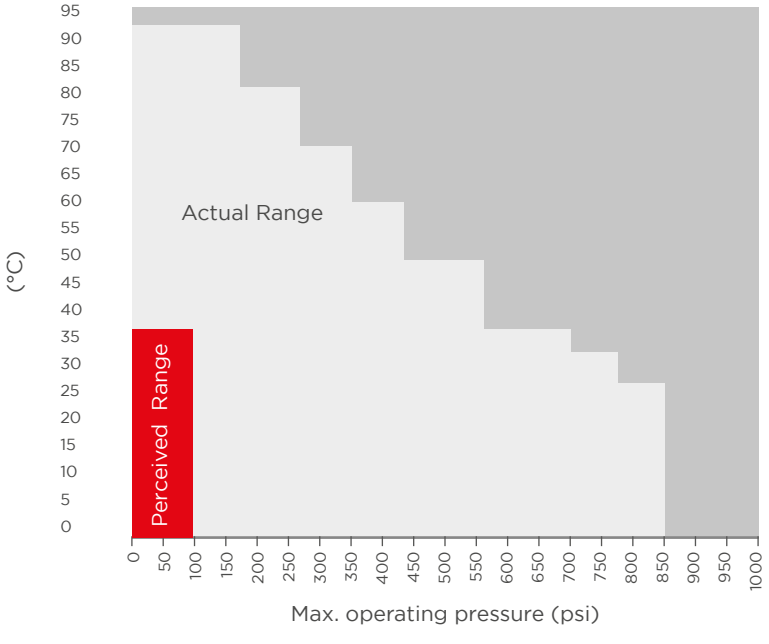
THERMAL CONDUCTIVITY

CPVC has very low thermal conductivity value. The heat transfer coefficient of Prince Onefit with Corzan® CPVC technology is approximately 1/300th that of steel, saving energy costs and offering a much cooler surface temperature. Not only does it reduce the need of costly insulation, it limits worker exposure to burn hazards.



PRINCE ONEFIT ACTUAL USABLE RANGE V/S PERCEIVED USABLE RANGE

In the diagram is Prince Onefit with Corzan® CPVC technology's maximum operating temperature and pressure range as determined by ASTM D2837. The red area is what most engineer's perceive CPVC's capabilities to be. The light gray is Prince Onefit CPVC's full operating range.



PIPE DIMENSION SCH 40

NOMINAL PIPE SIZE		OUTSIDE DIAMETER		AVERAGE INSIDE DIAMETER		MINIMUM WALL THICKNESS		MAXIMUM WATER PRESSURE	
inch	mm	inch	mm	inch	mm	inch	mm	KG/CM2 @23°C	(PSI) @73°F
1/2	15	0.84	21.34	0.608	15.44	0.109	2.77	42.18	600
3/4	20	1.05	26.67	0.81	20.57	0.113	2.87	33.75	480
1	25	1.315	33.4	1.033	26.24	0.133	3.38	31.64	450
1 1/4	32	1.66	42.16	1.364	34.65	0.14	3.56	26.01	370
1 1/2	40	1.9	48.26	1.592	40.44	0.145	3.68	23.2	330
2	50	2.375	60.33	2.049	52.04	0.154	3.91	19.69	280
2 1/2	65	2.876	73.03	2.445	62.1	0.203	5.16	21.09	300
3	80	3.5	88.9	3.042	77.27	0.216	5.49	18.28	260
4	100	4.5	114.3	3.998	101.55	0.237	6.02	15.47	220
6	150	6.625	168.28	6.031	153.19	0.28	7.11	12.66	180
8	200	8.625	219.08	7.943	201.75	0.322	8.18	11.25	160
10	250	10.75	273.05	9.976	253.39	0.365	9.27	9.84	140
12	300	12.75	323.85	11.89	302.01	0.406	10.31	9.14	130

Mpa = Mega Pascal 1 Mpa = 10.19 kg/cm2 1 kg/cm2 = 14.2233343 PSI.

*Pressure rating applies for water at 23°C. For temperatures greater than 23°C see derating factors.
For fluids other than water the full pressure rating may not apply; see chemical resistance table.

**Schedule 40 pipe or Schedule 80 pipe 6" or larger should never be threaded. Schedule 80 pipe operating above 65°C should not be threaded. Use flanged joints, unions, or victaulic couplings where occasional disassembly is necessary.

PIPE DIMENSION SCH 80

NOMINAL PIPE SIZE		OUTSIDE DIAMETER		AVERAGE INSIDE DIAMETER		MINIMUM WALL THICKNESS		MAXIMUM WATER PRESSURE	
inch	mm	inch	mm	inch	mm	inch	mm	KG/CM2 @23°C	(PSI) @73°F
1/2	15	0.84	21.34	0.528	13.14	0.147	3.73	59.76	850
3/4	20	1.05	26.67	0.724	18.39	0.154	3.91	48.51	690
1	25	1.315	33.4	0.935	23.75	0.179	4.55	44.29	630
1 1/4	32	1.66	42.16	1.256	31.9	0.191	4.85	36.56	520
1 1/2	40	1.9	48.26	1.476	37.49	0.2	5.08	33.04	470
2	50	2.375	60.33	1.913	48.59	0.218	5.54	28.12	400
2 1/2	65	2.876	73.03	2.289	58.14	0.276	7.01	29.53	420
3	80	3.5	88.9	2.864	72.75	0.3	7.62	26.01	370
4	100	4.5	114.3	3.786	96.16	0.337	8.56	22.5	320
6	150	6.625	168.28	5.709	145.01	0.432	10.97	19.69	280
8	200	8.625	219.08	7.565	192.15	0.5	12.7	17.58	250
10	250	10.75	273.05	9.492	241.1	0.593	15.06	16.17	230
12	300	12.75	323.85	11.294	286.87	0.687	17.45	16.17	230

Mpa = Mega Pascal 1 Mpa = 10.19 kg/cm2 1 kg/cm2 = 14.2233343 PSI.

TEMPERATURE DERATING FACTOR - PIPES

Working Temperature (°C)	23.0 - 26.7	32.2	37.8	48.9	60	71.1	82.2	93.3
Pipe Derating Factor	1.00	0.91	0.82	0.65	0.50	0.40	0.25	0.20

COMPARISON OF PRINCE ONEFIT WITH CORZAN® CPVC TECHNOLOGY V/S MSRL

S No.	Factor	MSRL	Prince Onefit
1	External Corrosion	It corrodes when comes in contact with acid fumes or even in normal atmospheric Condition.	Prince Onefit is resistant to acid fumes & even very harsh atmospheric conditions.
	Internal Corrosion	Rubber lining is inconsistent both in terms of rubber quality & workmanship. It results in localised corrosion which leads to leakage.	Prince Onefit has excellent chemical resistance to all mineral acids and bases.
2	Failure Detection	As a consequence of above, it's very difficult to predict the spread of corrosion.	Prince Onefit is impervious to both galvanic as well as chemical attack.
3	Jointing method	Flanged joints using bolts	Socket joints which helps in reducing the overall installation cost. Also it reduces the chances of failure of flange gaskets minimising overall downtime
4	Friction Loss	Rubber lined surface is very rough, hence high friction losses.	Very smooth internal surface results in minimum friction losses.
5	Biological Growth	Due to rough internal surface there is biological growth.	Prince Onefit has a smooth bore making it resistant to all kinds of bacterial growth.
6	Maintenance	Due to poor corrosion resistance frequent changing of pipes is required.	Superior resistance to most corrosive chemicals and also no scaling makes the system maintenance free.
7	Service Life	Very Less as compared to Prince Onefit	Prince Onefit has high life compared to MSRL

COMPARISON OF PRINCE ONEFIT WITH CORZAN® CPVC TECHNOLOGY V/S HDPE

S No.	Factor	HDPE	Prince Onefit
1	Physical poperties a) Specific gravity b) Tensile strength [PSO@26°C] c) Flexural Strength [PSI] d) Co-efficient of Thermal expansion [in./in/°F X 105] e) Thermal conductivity [BTU.hr/ft2 /°F/in]	 0.95 g/cm^3 3300 psi 3000 psi 7.8 in/in/°F 7.0 BTU in/hr/ft^2/°F	 1.52 g/cm^3 7900 psi 13000 psi 3.8 in/in/°F 0.95 BTU in/hr/ft^2/°F
2	Fire Properties	HDPE supports combustion.	It does not support combustion.
3	Support Structure	Supports have to be provided at frequent intervals or it has to be supported throughout by using cable trays.	Fewer supports are required in comparison with HDPE.
4	Service Temperature	Its not recommended to be used for temperature above 55 °C.	It is recommended for 93 °C for continuous operation.
5	Jointing Method	A) Its joined by butt-welding process which need special equipment & high skill. B) Butt welded joints form an internal protrusion which prevents smooth flow & hence higher friction losses. Also internal protrusion erodes with time and contaminates the fluid.	A) Joined by solvent cementing which requires no special tools and does not need high skill level. B) These joints do not pose such problems
6	Service Life	Very Less as compared to Prince Onefit	Prince Onefit has high life compared to HDPE

COMPARISON OF PRINCE ONEFIT WITH CORZAN® CPVC TECHNOLOGY V/S PP

S No.	Factor	PP	Prince Onefit
1	UV Resistance	It has a limited UV Resistance	Prince Onefit has excellent UV stability.
2	Service Temperature	PP typically operates upto 60 °C, above which the performance of the system is not as per standards.	Prince Onefit CPVC is recommended for 93 °C for continuous operation, with superior performance characteristics.
3	Fire Properties	PP supports combustion.	It does not support combustion.
4	Thermal Conductivity	0.22 W/ m.K	0.14 W/ m.K
5	LOI	PP has an LOI of 18	It has an LOI 0f 60 – greater resistance to flame and burning
6	Support Structure	Supports have to be provided at frequent intervals or it has to be supported throughout by using cable trays.	Fewer supports are required in comparison with PP.
7	Jointing a) Method	FRP-PVC/PP is joined by using glass mat and catalyses resin. This require a high skill level.	Prince Onefit is joined by using solvent cement. This does not require a high skill level.
	b) Time	Time consuming since it involves fibre glass laying, resin preparation, resin application and resin curing.	Very quick only involves solvent cement application on two surfaces, press fitting the two ends and allow for setting of joint.
8	Installation cost	High, since it need high skill levels as well as more time.	Low, since it need low skill levels and less time.
9	Maintenance	Due to frequent leakage and high failure rate, frequent maintenance is required.	Prince Onefit requires minimum maintenance

COMPARISON OF PRINCE ONEFIT WITH CORZAN® CPVC TECHNOLOGY V/S PVC

S No.	Factor	PVC	Prince Onefit
1	Chemical Resistance	Inferior Chemical Resistance properties compared to CPVC	Prince Onefit CPVC's chemical compatibility is with more than 400+ chemicals
2	Service Temperature	PVC typically operates upto 60 °C, above which the performance of the system is not as per standards.	Prince Onefit CPVC is recommended for 93 °C for continuous operation, with superior Temperature resistance
3	Pressure Resistance	Lower pressure operating range	Higher Pressure Rating compared to PVC and other materials
4	Flash Ignition Temperature	Temperature at which gas can be ignited by external flame - 399 °C	Temperature at which gas can be ignited by external flame - 482 °C
5	LOI	It has an LOI of 45	It has an LOI 0f 60 – greater resistance to flame and burning
6	Corrosion Resistance	Very Less resistance to Chemicals, Acids, bases and corrosion	Superior Corrosion resistance Properties compared to PVC and other materials

COMPARISON OF PRINCE ONEFIT WITH CORZAN® CPVC TECHNOLOGY V/S GENERIC CPVC

S No.	Factor	Generic CPVC	Prince Onefit
1	Chemical Resistance	Inferior Chemical Resistance properties compared to Prince Onefit	Prince Onefit CPVC's chemical compatibility is with more than 400+ chemicals
2	Cell Classification	Cell Classification of 23448 – less impact strength and HDT properties	Cell Classification of 24448 – Higher Impact Strength and HDT properties
3	Pressure Resistance	Lower pressure operating range	Higher Pressure Operating Range
4	LOI	Not all CPVC have an LOI of 60	LOI 0f 60 – greater resistance to flame and burning
5	Corrosion Resistance	Very Less resistance to Chemicals, Acids, bases and corrosion	Superior Corrosion resistance Properties compared to Generic CPVC and other materials
6	Service Life	Very Less Service Life as the raw Material used for compound mix would be generic	Prince Onefit is known to offer Longer Service Life – with many successful Global installations since years

CHEMICAL RESISTANCE CHART

Chemical	Ambient Temp (23°C / 73°F)	Maximum Temp (°C / °F)
Acetaldehyde	N	N
Acetic Acid, up to 10%	R	82° C (180° F)
Acetic Acid, Greater than 10%	E	82° C (E-180° F)
Acetic Acid, Glacial (pure)	N	N
Acetic Anhydride	N	N
Acetone, up to 5%	R	82° C (180° F)
Acetone, greater than 5%	E	82° C (E-180° F)
Acetone, Pure	N	N
Acetonitrile	N	N
Acetophenone	N	N
Acetyl Chloride	N	N
Acrylic Acid	N	N
Acrylonitrile	N	N
Adipic Acid, sat'd in water	R	93° C (200° F)
Allyl Alcohol	R	93° C (200° F)
Allyl Chloride	N	N
Alum, all varieties	R	93° C (200° F)
Aluminum Acetate	R	93° C (200° F)
Aluminum Chloride	R	93° C (200° F)
Aluminum Fluoride	R	93° C (200° F)
Aluminum Hydroxide	R	93° C (200° F)
Aluminum Nitrate	R	93° C (200° F)
Aluminum Sulfate	R	93° C (200° F)
Ammonia	N	N
Ammonium Acetate	R	93° C (200° F)
Ammonium Benzoate	R	93° C (200° F)
Ammonium Bifluoride	R	93° C (200° F)
Ammonium Carbonate	R	93° C (200° F)
Ammonium Chloride	R	93° C (200° F)
Ammonium Citrate	R	93° C (200° F)
Ammonium Dichromate	R	93° C (200° F)
Ammonium Fluoride	R	93° C (200° F)
Ammonium Hydroxide, 28%	N	N
Ammonium Hydroxide, 10%	N	N
Ammonium Hydroxide, 3%	R	N
Ammonium Nitrate	R	93° C (200° F)
Ammonium Persulfate	R	-
Ammonium Phosphate	R	82° C (L-180° F)
Ammonium Sulfamate	R	93° C (200° F)
Ammonium Sulfate	R	93° C (200° F)
Ammonium Sulfide	R	93° C (200° F)
Ammonium Thiocyanate	R	93° C (200° F)
Ammonium Tartrate	R	93° C (200° F)
Amyl Acetate	N	N
Amyl Alcohol	E	82° C (L-180° F)
Amyl Chloride	N	N
Aniline	N	N
Aniline Hydrochloride	-	-
Anthraquinone	R	R
Antimony Trichloride	R	93° C (200° F)
Aqua Regia	R	N
Arsenic Acid	R	-
Aryl Sulfonic Acid	R	82° C (180° F)

Chemical	Ambient Temp (23°C / 73°F)	Maximum Temp (°C / °F)
Barium Carbonate	R	93° C (200° F)
Barium Chloride	R	93° C (200° F)
Barium Hydroxide	R	93° C (200° F)
Barium Nitrate	R	93° C (200° F)
Barium Sulfate	R	93° C (200° F)
Barium Sulfide	R	93° C (200° F)
Beer	R	93° C (200° F)
Beet Sugar Liquors	R	93° C (200° F)
Benzaldehyde	N	N
Benzene	N	N
Benzene Sulfonic Acid	R	82° C (180° F)
Benzoic Acid	R	82° C (180° F)
Benzyl Alcohol	E	82° C (E-180° F)
Benzyl Chloride	N	N
Bismuth Carbonate	R	93° C (200° F)
Black Liquor	R	93° C (200° F)
Bleach, Household (5% Cl)	R	93° C (200° F)
Bleach, Industrial (15% Cl)	R[3,4]	93° C (200° F)
Blood	R	93° C (200° F)
Borax	R	93° C (200° F)
Boric Acid	R	93° C (200° F)
Brine Acid	R	93° C (200° F)
Bromic Acid	R	-
Bromine	N	N
Bromine, aqueous, sat'd	R	93° C (200° F)
Bromobenzene	N	N
Bromotoluene	N	N
Butanol	E	82° C (E-180° F)
Butyl Acetate	N	N
Butyl Carbitol™	N	N
Butyl Cellosolve™	N	N
Butyl Phenol	R	-
Butyric Acid, up to 1%	R	82° C (180° F)
Butyric Acid, greater than 1%	E	82° C (E-180° F)
Butyric Acid, pure	N	N
Cadmium Acetate	R	93° C (200° F)
Cadmium Chloride	R	93° C (200° F)
Cadmium Cyanide	R	93° C (200° F)
Cadmium Sulfate	R	93° C (200° F)
Calcium Acetate	R	93° C (200° F)
Calcium Bisulfide	R	93° C (200° F)
Calcium Bisulfite	R	93° C (200° F)
Calcium Carbonate	R	93° C (200° F)
Calcium Chlorate	R	93° C (200° F)
Calcium Hydroxide	R	93° C (200° F)
Calcium Hypochlorite	R	93° C (200° F)
Calcium Nitrate	R[3,4]	93° C (200° F)
Calcium Oxide	R	93° C (200° F)
Calcium Sulfate	R	93° C (200° F)
Cane Sugar Liquors	R	93° C (200° F)
Caprolactam	N	N
Caprolactone	N	N
Carbitol™	N	N

CHEMICAL RESISTANCE CHART

Chemical	Ambient Temp (23°C / 73°F)	Maximum Temp (°C / °F)
Carbolic Acid	R	-
Carbon Dioxide	R[2]	93° C (200° F)
Carbon Disulfide	N	N
Carbon Monoxide	R[2]	93° C (200° F)
Carbon Tetrachloride	N	N
Carbonic Acid	R	93° C (200° F)
Castor Oil	E	82° C (E-180° F)
*Caustic Potash	R	82° C (180° F)
*Caustic Soda	R	82° C (180° F)
Cellosolve™, all types	N	N
Chloramine, aqueous	R	82° C (180° F)
Chloric Acid	R	82° C (180° F)
Chlorinated Water, (Hypochlorite)	R	93° C (200° F)
Chlorine, aqueous	S	S-82° C (180° F)
Chlorine, dry gas	S[2]	S
Chlorine, liquid	N	N
Chlorine, trace in air	R[2]	93° C (200° F)
Chlorine, wet gas	S[2]	S
Chlorine Dioxide, aqueous, sat'd	S	S-82° C (180° F)
Chloroacetic Acid	N	N
Chlorobenzene	N	N
Chloroform	N	N
Chromic Acid, 40% (Conc.)	R	82° C (180° F)
Chromium Nitrate	R	93° C (200° F)
Citric Acid	R	93° C (200° F)
Citrus Oils	N	N
Coconut Oil	E	82° C (E-180° F)
Coffee	-	-
Copper Acetate	R	93° C (200° F)
Copper Carbonate	R	93° C (200° F)
Copper Chloride	R	93° C (200° F)
Copper Cyanide	R	93° C (200° F)
Copper Fluoride	R	93° C (200° F)
Copper Nitrate	R	93° C (200° F)
Copper Sulfate	R	93° C (200° F)
Corn Oil	E	82° C (E-180° F)
Corn Syrup	R	93° C (200° F)
Cottonseed Oil	E	82° C (E-180° F)
Creosote	N	N
Cresol	N	N
Crotonaldehyde	N	N
Cumene	N	N
Cyclohexane	R	-
Cyclohexanol	E	-
Cyclohexanone	N	N
Decahydronaphthalene	R	-
Detergents	E	82° C (E-180° F)
Dextrin	R	93° C (200° F)
Dextrose	R	93° C (200° F)
Diacetone Alcohol	N	N
Dibutoxyethyl Phthalate	N	N
Dibutyl Phthalate	N	N
Dibutyl Ether	N	N

Chemical	Ambient Temp (23°C / 73°F)	Maximum Temp (°C / °F)
Dibutyl Sebacate	N	N
Dichlorobenzene	N	N
Dichloroethylene	N	N
Diesel Fuel	E	82° C (E-180° F)
Diethylamine	N	N
Diethyl Ether	N	N
Diglycolic Acid	R	R
Dill Oil	N	N
Dimethyl Hydrazine	N	N
Dimethyl Phthalate	N	N
Dimethylamine	N	N
Dimethylformamide	N	N
Dioctyl phthalate	N	N
Dioxane	N	N
Disodium Phosphate	R	93° C (200° F)
Distilled Water	R	93° C (200° F)
EDTA, Tetrasodium-	R	93° C (200° F)
Ethanol, up to 5%	R	82° C (180° F)
Ethanol, greater than 5%	E	82° C (E-180° F)
Ethanol, pure	E	82° C (E-180° F)
Ethyl Acetate	N	N
Ethyl Acetoacetate	N	N
Ethyl Acrylate	N	N
Ethyl Benzene	N	N
Ethyl Chloride	N	N
Ethyl Chloroacetate	N	N
Ethyl Ether	N	N
Ethyl Formate	N	N
Ethyl Mercaptan	N	N
Ethyl Oxalate	N	N
Ethylene Bromide	N	N
Ethylene Chloride	N	N
Ethylene Chlorohydrin	N	N
Ethylene Diamine	N	N
Ethylene Glycol, up to 50%	R	82° C (180° F)
Ethylene Glycol, greater than 50%	E	82° C (E-180° F)
Ethylene Oxide	N	N
2-Ethylhexanol	E	82° C (E-180° F)
Fatty Acids	E	82° C (E-180° F)
Ferric Chloride	R	93° C (200° F)
Ferric Hydroxide	R	93° C (200° F)
Ferric Nitrate	R	93° C (200° F)
Ferric Sulfate	R	93° C (200° F)
Ferrous Chloride	R	93° C (200° F)
Ferrous Hydroxide	R	93° C (200° F)
Ferrous Nitrate	R	93° C (200° F)
Ferrous Sulfate	R	93° C (200° F)
Fish Oil	E	82° C (E-180° F)
Fluoboric Acid	R	-
Fluorine Gas	N	N
Fluorosilicic Acid, 30%	R	82° C (180° F)
Fluosilicic Acid	R	82° C (180° F)
Formaldehyde	N	N

CHEMICAL RESISTANCE CHART

Chemical	Ambient Temp (23°C / 73°F)	Maximum Temp (°C / °F)
Formic Acid, up to 25%	R	82° C (180° F)
Formic Acid, greater than 25%	E	N
Formic Acid, pure	N	N
Freons	N	N
Fructose	R	93° C (200° F)
Furfural	N	N
Gallic Acid, aqueous	R	82° C (180° F)
Gasoline	N	N
Gelatine	R	93° C (200° F)
Glucose	R	93° C (200° F)
Glycerine	R	93° C (200° F)
Glycolic Acid	N	N
Glyoxal, aqueous	R	-
Green Liquor	R	93° C (200° F)
Halocarbon Oils	N	N
Heptane	R	-
Hexane	R	-
Hexanol	E	82° C (E-180° F)
Hydrazine	N	N
Hydrobromic Acid	R	-
Hydrochloric Acid	R	82° C (180° F)
Hydrocyanic Acid	R	-
*Hydrofluoric Acid, 3%	R[3]	82° C (180° F)
*Hydrofluoric Acid, 48%	S[3]	S-82° C (180° F)
Hydrofluosilicic Acid, 30%	R	82° C (180° F)
*Hydrogen Peroxide, 30%	R[1]	82° C (180° F)
*Hydrogen Peroxide, 50%	R[1]	120
Hydrogen Sulfide, Aqueous	R	82° C (180° F)
Hydroquinone, aqueous	R	-
Hydroxylamine Sulfate	-	-
Hypochlorous Acid	S	S-82° C (180° F)
Iodine, aqueous	R	-
Isobutyl Alcohol	E	82° C (E-180° F)
Isophorone	N	N
Isopropanol	E	82° C (E-180° F)
Isopropyl Acetate	N	N
Isopropyl Chloride	N	N
Isopropyl Ether	N	N
Kerosene	N	N
Ketchup	R	93° C (200° F)
Kraft Liquors	R	93° C (200° F)
Lactic Acid, 25%	R	93° C (200° F)
Lard Oil	E	82° C (E-180° F)
Lauryl Chloride	N	N
Lead Acetate	R	93° C (200° F)
Lead Chloride	R	93° C (200° F)
Lead Nitrate	R	93° C (200° F)
Lead Sulfate	R	93° C (200° F)
Lemon Oil	N	N
Ligroin	R	-
Limonene	N	N
Linoleic Acid	E	82° C (E-180° F)
Linseed Oil	E	82° C (E-180° F)

Chemical	Ambient Temp (23°C / 73°F)	Maximum Temp (°C / °F)
Lithium Bromide	R	93° C (200° F)
Lithium Chloride	R	93° C (200° F)
Lithium Hydroxide	R	-
Lithium Sulfate	R	93° C (200° F)
Magnesium Carbonate	R	93° C (200° F)
Magnesium Chloride	R	93° C (200° F)
Magnesium Citrate	R	93° C (200° F)
Magnesium Fluoride	R	93° C (200° F)
Magnesium Hydroxide	R	93° C (200° F)
Magnesium Nitrate	R	93° C (200° F)
Magnesium Oxide	R	93° C (200° F)
Magnesium Sulfate	R	93° C (200° F)
Maleic Acid, 50%	R	93° C (200° F)
Malic Acid	R	93° C (200° F)
Manganese Sulfate	R	93° C (200° F)
Mercuric Chloride	R	93° C (200° F)
Mercuric Cyanide	R	93° C (200° F)
Mercuric Sulfate	R	93° C (200° F)
Mercurous Nitrate	R	93° C (200° F)
Mercury	R	82° C (180° F)
Methane Sulfonic Acid	R	82° C (180° F)
Methanol, up to 10%	R	82° C (180° F)
Methanol, grater than 10%	E	82° C (E-180° F)
Methanol, Pure	N	N
Methyl Acetate	N	N
Methyl Chloride	N	N
Methyl Ethyl Ketone	N	N
Methyl Formate	N	N
Methyl Isobutyl Ketone	N	N
Methyl Isopropyl Ketone	N	N
Methyl Methacrylate	N	N
Methylamine	N	N
Methylene Bromide	N	N
Methylene Chloride	N	N
Methylene Chlorobromide	N	N
Methylene Iodide	N	N
Mineral Oil	R	-
Molasses	R	R
Monoethanolamine	N	N
Morpholine	N	N
Motor Oil	R	-
Muriatic Acid	R	82° C (180° F)
Naphtha	R	-
Naphthalene	R	-
Nickel Acetate	R	93° C (200° F)
Nickel Chloride	R	93° C (200° F)
Nickel Nitrate	R	93° C (200° F)
Nickel Sulfate	R	93° C (200° F)
*Nitric Acid, up to 25%	R[1]	65° C (150° F)
*Nitric Acid, 25-35%	R[1]	54° C (130° F)
*Nitric Acid, 70%	R[1]	40° C (105° F)
Nitrobenzene	N	N
Nitroethane	N	N

CHEMICAL RESISTANCE CHART

Chemical	Ambient Temp (23°C / 73°F)	Maximum Temp (°C / °F)
Nitroglycerine	N	N
Nitromethane	N	N
Nitrous Acid	R	-
Octane	R	-
1-Octanol	E	82° C (E-180° F)
Oils, Sour Crude	N	N
Oleum	N	N
Olive Oil	N	N
Oxalic Acid, Sat'd	R	76° C (170° F)
Oxygen	R[2]	82° C (180° F)
Ozonized Water	R	93° C (200° F)
Palm Oil	E	82° C (E-180° F)
Paraffin	R	82° C (180° F)
Peanut Oil	E	82° C (E-180° F)
Peracetic Acid	N	N
Perchloric Acid, 10%	R	-
Phenol	R	-
Phenylhydrazine	N	N
Phosphoric Acid	R	82° C (180° F)
Phosphorus Pentoxide	R	-
Phosphorus Trichloride	N	N
Photographic Solutions	R	82° C (180° F)
Phthalic Acid	N	N
Picric Acid	N	N
Pine Oil	N	N
Plating Solutions	R	82° C (180° F)
Polyethylene Glycol	E	82° C (E-180° F)
Polyvinyl Alcohol	R	82° C (180° F)
Potash	R	93° C (200° F)
Potassium Acetate	R	93° C (200° F)
Potassium Bicarbonate	R	93° C (200° F)
Potassium Bichromate	R	93° C (200° F)
Potassium Bisulfate	R	93° C (200° F)
Potassium Bisulfite	R	93° C (200° F)
Potassium Borate	R	93° C (200° F)
Potassium Bromate	R	93° C (200° F)
Potassium Bromide	R	93° C (200° F)
Potassium Carbonate	R	93° C (200° F)
Potassium Chlorate	R	93° C (200° F)
Potassium Chloride	R	93° C (200° F)
Potassium Chromate	R	93° C (200° F)
Potassium Cyanate	R	93° C (200° F)
Potassium Cyanide	R	93° C (200° F)
Potassium Dichromate	R	93° C (200° F)
Potassium Ferricyanide	R	93° C (200° F)
Potassium Ferrocyanide	R	93° C (200° F)
Potassium Fluoride	R	93° C (200° F)
*Potassium Hydroxide	R	82° C (180° F)
Potassium Hypochlorite	R[3,4]	93° C (200° F)
Potassium Iodide	R	93° C (200° F)
Potassium Nitrate	R	93° C (200° F)
Potassium Perborate	R	82° C (180° F)
Potassium Perchlorate, sat'd	R	82° C (180° F)

Chemical	Ambient Temp (23°C / 73°F)	Maximum Temp (°C / °F)
Potassium Permanganate, sat'd	R	82° C (180° F)
Potassium Persulfate, sat'd	R	-
Potassium Phosphate	R	82° C (180° F)
Potassium Sulfate	R	93° C (200° F)
Potassium Sulfide	R	93° C (200° F)
Potassium Sulfite	R	93° C (200° F)
Potassium Tripolyphosphate	R	93° C (200° F)
Propanol, up to 0.5%	R	82° C (180° F)
Propanol, greater than 0.5%	E	82° C (E-180° F)
Propanol, pure	E	82° C (E-180° F)
Propargyl Alcohol	E	82° C (E-180° F)
Propionic Acid, up to 2%	R	82° C (180° F)
Propionic Acid, greater than 2%	E	82° C (E-180° F)
Propionic Acid, pure	N	N
Propyl Acetate	N	N
Propyl Bromide	N	N
Propylene Dichloride	N	N
Propylene Gycol, up to 35%	R	82° C (180° F)
Propylene Gycol, greater than 35%	E	82° C (E-180° F)
Propylene Oxide	N	N
Pyridine	N	N
Pyrogallol	R	-
Pyrrole	N	N
Salicylaldehyde	N	N
Sea Water	R	93° C (200° F)
Silicic Acid	R	-
Silicone Oil	R	-
Silver Chloride	R	93° C (200° F)
Silver Cyanide	R	93° C (200° F)
Silver Nitrate	R	93° C (200° F)
Silver Sulfate	R	93° C (200° F)
Soaps	R	93° C (200° F)
Sodium Acetate	R	93° C (200° F)
Sodium Aluminate	R	93° C (200° F)
Sodium Arsenate	R	93° C (200° F)
Sodium Benzoate	R	93° C (200° F)
Sodium Bicarbonate	R	93° C (200° F)
Sodium Bichromate	R	93° C (200° F)
Sodium Bisulfate	R	93° C (200° F)
Sodium Bisulfite	R	93° C (201° F)
Sodium Borate	R	93° C (200° F)
Sodium Bromide	R	93° C (200° F)
Sodium Carbonate	R	93° C (200° F)
Sodium Chlorate	R	93° C (200° F)
Sodium Chloride	R	93° C (200° F)
Sodium Chlorite	R	93° C (200° F)
Sodium Chromate	R	93° C (200° F)
Sodium Cyanide	R	93° C (200° F)
Sodium Dichromate	R	93° C (200° F)
Sodium Ferricyanide	R	93° C (200° F)
Sodium Ferrocyanide	R	93° C (200° F)
Sodium Fluoride	R	93° C (200° F)
Sodium Fluorosilicate	R	82° C (180° F)

CHEMICAL RESISTANCE CHART

Chemical	Ambient Temp (23°C / 73°F)	Maximum Temp (°C / °F)
Sodium Formate	R	93° C (200° F)
Sodium Hexametaphosphate – Saturated	R	82° C (180° F)
*Sodium Hydroxide	R	82° C (180° F)
Sodium Hypobromite	R	93° C (200° F)
Sodium Hypochlorite	R[3,4]	93° C (200° F)
Sodium Iodide	R	93° C (200° F)
Sodium Metabisulfite – Saturated	R	82° C (180° F)
Sodium Metaphosphate	R	93° C (200° F)
Sodium Nitrate	R	93° C (200° F)
Sodium Nitrite	R	93° C (200° F)
Sodium Palmitate	R	93° C (200° F)
Sodium Perborate	R	82° C (180° F)
Sodium Percarbonate, 15%	R	82° C (180° F)
Sodium Perchlorate	R	82° C (180° F)
Sodium Permanganate, 25%	R	82° C (180° F)
Sodium Phosphate	R	93° C (200° F)
Sodium Silicate	R	93° C (200° F)
Sodium Sulfate	R	93° C (200° F)
Sodium Sulfide	R	93° C (200° F)
Sodium Sulfite	R	93° C (200° F)
Sodium Thiosulfate	R	93° C (200° F)
Sodium Tripolyphosphate	R	93° C (200° F)
Soybean Oil	E	82° C (E-180° F)
Stannic Chloride	R	93° C (200° F)
Stannous Chloride	R	93° C (200° F)
Stannous Sulfate	R	93° C (200° F)
Starch	R	93° C (200° F)
Stearic Acid	R	-
Strontium Chloride	R	93° C (200° F)
Styrene	N	N
Succinic Acid		
Sugar	R	93° C (200° F)
Sulfamic Acid	R	82° C (180° F)
Sulfur	R	-
Sulfur Dioxide – Aqueous	R	-
*Sulfuric Acid, Fuming	N	N
*Sulfuric Acid, 98%	R[1]	51° C (125° F)
*Sulfuric Acid, 85%	R[1]	76° C (170° F)
*Sulfuric Acid, 80%	R	82° C (180° F)
*Sulfuric Acid, 50%	R	82° C (180° F)
*Sulfurous Acid	R	-
Tall Oil	E	82° C (E-180° F)
Tannic Acid, 30%	R	-
Tartaric Acid	R	-
Tetraacetyl Ethylene Diamine, sat'd	R	82° C (180° F)
Tetrahydrofuran	N	N
Tetrahydronaphthalene	R	-
Tetrasodiumpyrophosphate	R	93° C (200° F)
Thionyl Chloride	N	N
Toluene	N	N
Tomato Juice	R	82° C (180° F)
Tributyl Citrate	N	N
Tributyl Phosphate	N	N
Trichloroacetic Acid	N	N
Trichloroethylene	N	N
Triethanolamine	N	N
Triethylamine	N	N
Trimethylpropane	R	-
Trisodium Phosphate	R	93° C (200° F)
Tung Oil	E	82° C (E-180° F)
Turpentine	N	N
Urea	N	N
Urine	R	93° C (200° F)
Vegetable Oil	E	82° C (E-180° F)
Vinegar	R	93° C (200° F)
Vinyl Acetate	N	N
Water, Deionized	R	93° C (200° F)
Water, Demineralized	R	93° C (200° F)
Water, Distilled	R	93° C (200° F)
Water, Salt	R	93° C (200° F)
Water	R	93° C (200° F)
Whiskey	R	93° C (200° F)
White Liquor	R	93° C (200° F)
Wine	R	93° C (200° F)
Xylene	N	N
Zinc Acetate	R	93° C (200° F)
Zinc Carbonate	R	93° C (200° F)
Zinc Chloride	R	93° C (200° F)
Zinc Nitrate	R	93° C (200° F)
Zinc Sulfate	R	93° C (200° F)

In the table the alphabet stands for below mentioned:

R - Recommended: Minimal or no swelling and/or loss in tensile strength, low or no potential for Environmental Stress Cracking (ESC)

N - Not Recommended: Significant softening or degradation with loss in material strength

S - Satisfactory Resistance: Low to moderate swelling or degradation above certain temperatures and/or concentrations

E - Possible ESC: Environmental stress cracking possible with mechanical stress on the material.

1. The temperature of gray CPVC installed in direct sunlight can reach 175°F. This should be considered when establishing the maximum operating temperature of the system.

2. CPVC is not recommended for gas under pressure.

3. A silica-free grade of cement must be used.

4. Do not allow chemical to decompose inside closed off sections of piping as a dangerous overpressure situation could occur.

PROJECT REFERENCES WHERE CORZAN® IS USED

Sr no	Customer Name	Location
1	Aditya Birla Nuvo Ltd.	Veraval
2	Bajaj Auto Ltd.	Aurangabad
3	Balrampur Chinni Mills	Balrampur
4	Bharat Rasayan Ltd.	Bharuch, Gujarat
5	Bhilai Steel Plant	Bhilai, Chattisgadh
6	Birla Cellulose Ltd	Kosamba
7	Brahmputra Cracker & Polymer Ltd	Dibrugarh
8	Brahmputra Cracker & Polymer Ltd	Dibrugarh
9	Cadila Healthcare Ltd	Ahmedabad, Gujarat
10	Cadila Healthcare Ltd.	Ahmedabad, Gujarat
11	Chambal Fertilizers Ltd	Kota
12	Chemfab Alkalies Ltd.	Pondicherry
13	Chennai Petroleum Corp. Ltd.	Chennai
14	Doshion Ltd.	Ahmedabad
15	Driplex Water Engg. Ltd.	New Delhi
16	Essar Steel Ltd.	Surat
17	Essar Steel Ltd.	Surat
18	Federal Mogul	Patiala
19	Fertilizers & Chemicals Travancore Ltd.	Cochin
20	GAIL India Ltd.	Pata
21	Ganesh Sugar	Surat
22	Ganesh Sugar	Surat
23	Gharda Chemicals Ltd.	Dombivali
24	Grasim Industries Ltd.	Nagda
25	Gujarat Alkalies & Chemicals Ltd.	Dahej
26	Gujarat Fluoro-Chemicals Ltd	Dahej
27	Gujarat State Electricity Corporation Ltd.	Panandhro, Gujarat
28	Hi Tech Carbon Ltd.	Renukoot
29	Hindalco (Power Division)	Renusagar
30	Hindalco Industries Ltd.	Renukoot
31	Hindustan Newsprint Ltd.	Kottayam
32	Hindustan Zinc Ltd.	Debari
33	Hindustan Zinc Ltd.	Vizag
34	IFFCO	Phulpur
35	Indo Gulf Fertilizers Ltd.	Sultanpur
36	Ion Exchange Ltd	Pune
37	J K Paper Ltd.	Songadh
38	Jindal Steel Ltd.	Tarapur
39	Kamrej Sugar	Surat
40	Kamrej Sugar Ltd.	Surat
41	Kanoria Chemicals & Industries Ltd.	Renukoot
42	KRIBHCO	Surat
43	LANCO	Anpara
44	Lanco	Anpara

Sr no	Customer Name	Location
45	Lloyds Steel Ltd.	Wardha
46	Madhi Sugar Ltd.	Surat
47	Mahuva Sugar	Surat
48	Mangalore Refinery & Petroleum Ltd	Mangalore
49	Mangalore Refinery & Petrochemicals Ltd.	Mangalore, Karnataka
50	MMTC PAMP India Pvt. Ltd.	Gurgaon
51	MSEB	Parli
52	Municipal Corporation of Greater Mumbai	Bhandup, Mumbai
53	National Steel Ltd.	Indore
54	National Thermal Power Corporation	Rihand
55	Nocil Ltd.	Navi Mumbai
56	NTPC	Jhajjar
57	NTPC	Sonebhadra
58	Nuberg Engg. Ltd.	Noida
59	ONGC Offshore Platform	Bombay High
60	Oswal Chemicals & fertilizers Ltd.	Shahjahanpur
61	Paradeep Phosphates Ltd	Paradeep, Orrisa
62	Paradeep Phosphates Ltd	Paradeep, Orrisa
63	Punjab Acid & Alkali Ltd.	Derabassi
64	RCF Ltd.	Mumbai
65	RCF Ltd.	Mumbai
66	Reliance Industries Ltd.	Nagothane, Maharashtra
67	Sail - Rourkella Steel Plant	Rourkella, Orissa
68	Shreeram Alkalies & Chemicals	Jhagadia
69	Shriram Piston	Gaziabad
70	Siel Chemicals	Patiala
71	Siel Chemicals	Patiala
72	Star Paper Ltd.	Saharanpur
73	Star Paper Mill	Saharanpur
74	Star Paper Mill	Saharanpur
75	Star Paper Mill	Saharanpur
76	Steel Co. Ltd.	Palej
77	Sunrise Containers Ltd.	Silvassa
78	Tata Chemical Ltd.	Haldia
79	Tata Chemicals Ltd.	Mithapur
80	Tata Steel Ltd	Jamshedpur
81	Tata Steel Ltd	Jamshedpur
82	The Andhra Pradesh Paper Mill	Rajamundary
83	The Associated Cement Ltd	Bhilai
84	Thermax Ltd.	Pune
85	Tuticorin Alkali Chemicals & Fertilizers Ltd.	Tuticorin
86	United Phosphorus Ltd.	Vapi
87	Uttam Galva Ltd.	Khopoli

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