TECHNICAL SPECIFICATIONS & MATERIAL PROPERTIES

01 TECHNICAL SPECIFICATIONS & MATERIAL PROPERTIES

UPVC/PVC PIPES & FITTINGS

Crown Plastic are exclusively available in the full range of uPVC/PVC pipes and fittings to meet the customer requirements and satisfaction. Crown Plastic products are suitable for various applications such as potable water line, irrigation, soil & waste water (above ground & below ground), drainage, ducting (electrical & tele communications) etc.

Crown Plastic pipes & fittings can solve many engineering problems whilst reducing overall costs because of their inherent properties of lightness, corrosion resistance and robustness. These coupled with precision manufacture will ensure maximum operational efficiency at economical laid costs.

Crown Plastic are manufacturing pipes and fittings according to various specifications of international standards like BS EN, DIN, BS, ISO, SASO, NEMA & ASTM etc.

QUALITY

Crown Plastic products are designed to meet the harsh climate conditions of the GCC region and places emphasis on Quality, Reliability and Economy.

Crown Plastic follow strict in - house Quality Control and backed by testing through independent laboratories of international repute to certify the quality of pipes and fittings.

Crown plastic do great emphasis on customer satisfaction through quality products. The company's operational excellence is evident through its established Quality management system which complies with ISO 9001 - 2015 standard, certified by Quality Accreditation Bureau for Qualified Companies (QAQC), USA.

RAW MATERIALS

The raw materials used is 100% uPVC virgin materials with necessary chemicals needed to facilitate the manufacturing process.

PHYSICAL APPEARANCE

The external and internal surface of the pipes and fittings are mirror smooth, clean and free from surface defects.

EFFECTIVE LENGTH

All pipes are manufactured in 4 meter and 6/5.8 meter length, custom length will provide according to the requirements.

COLOUR

The colour of Crown Plastic Products are available according to the standards and custom colour up on the requirements.

UPVC PIPES

S. No#	Characteristics	Value	Value
1.	Impact Strength	TIR <10% at 0°C	EN 744
2.	Vicat Softening Temperature	>80°C	EN 727
3.	Longitudinal Reversion	<5% at 150°C	EN 743 (Method B ; Air)
4.	Opacity	Shall not transmit >0.2% of visible light	EN 578
5.	Resistance to Internal Pressure	No failure the test period of 1hr at 20°C ; 42Mpa	EN 921
6	Resistance to Dichloromethane Test	No attack at any part of the surface of pipe at 15°C	EN 580

UPVC FITTINGS

S. No#	Characteristics	Value	Value
1.	Vicat Softening Temperature	>74OC	EN 727
2.	Opacity	Shall not transmit >0.2% of visible light	EN 578
3.	Resistance to Internal Pressure	No failure the test period of 1hr at 20°C ; 3.36 X PN	ISO/DIS 12092
4	Effects on Heating	Depth of crack/delamination, blisters or signs of weld line splitting <30% of wall thickness around injection point	EN 743 (Method B ; Air)

CHEMICAL RESISTANCE

uPVC pipes and fittings are suitable to be used with a number of acids, alkalies , salts and solvents that can be mixed with water.
uPVC pipes and fittings are not resistant to aromatic and chlorinated hydrocarbons.

Three different classes of chemical resistance degree are conventionally used in this guide ie:

Class 1: **HIGH RESISTANCE** (corrosion-proof) - all materials belonging to this ely corrosion-proof against the conveyed fluid, according to the specified operating conditions.

Class 2: **LIMITED RESISTANCE** - the materials belonging to this class are partially attacked by the conveyed chemical compound. The average life of the material is therefore shorter, and it is advisable to use a higher safety factor by selecting a higher SN rating pipe.

Class 3: **NO RESISTANE** - all material belonging to this class are subject to corrosion by the conveyed fluid and they should therefore not be used.

The absence of any class indication means that no data are available concerning the chemical resistance of the material in respect of the conveyed fluid.

CHEMICAL RESISTANCE TABLE

uPVC Chemical Resistance Chart

ABBREVIATIONS

sat = saturated solution at 20° C,nd = undefined concentration,
deb = weak concentration, comm - = commercial solution. dil = diluted solution

	FORMULA	CONC %	TEMP (°C)	PVC	PE
ACETALDEHYDE	CH_3CHO	100	25	3	1
			60	3	
- AQUEOUS SOLUTION		40	25	3	1
			60	3	2
ACETIC ACID	CH_3COOH	≤ 25	25	1	1
			60	2	1
		30	25	1	1
			60	2	1
		60	25	1	1
			60	2	1
		80	25	1	1
			60	2	
- GLACIAL		100	25	2	1
			60	3	2
ACETIC ANHYDRIDE	$(CH_3CO)_2O$	100	25	3	2
			60	3	2
ACETONE (DIMETHYL KETONE)	CH_3COCH_3	10	25	3	1
			60	3	
		100	25	3	2
			60	3	2
ACETOPHENONE (ACETYLBENZENE OR PHENYL METHYL KETONE)	$CH_3COC_6H_5$	nd	25		
			60		
ACRYLONITRILE (ACRYLONITRILE OR VINYL CYANIDE)	CH_2CHCN	technically pure	25		1
			60	3	1
ADIPIC ACID AQUEOUS SOLUTION	$(CH_2CH_2CO_2H)_2$	sat.	25	1	1
			60	2	1
ALLYL ALCOHOL	CH_2CHCH_2OH	96	25	2	1
			60	3	2
ALUM AQUEOUS SOLUTION (POTASH ALUM.SOL.)	$Al_2(SO_4)_3K_2SO_4nH_2O$	dil	25	1	1
		dil	60	2	1
		sat.	60	2	1
ALUMINIUM - CHLORIDE	$AlCl_3$	all	25	1	1
			60	1	1
- FLORIDE	AlF_3	100	25	1	1
			60	1	1
- HYDROXIDE	$Al(OH)_3$	all	25	1	
			60	1	-
NITRATE	$Al(NO_2)_3$	nd	25	1	
			60	1	-
SULFATE	$Al(SO_4)_3$	deb	25	1	
			60	1	1
		sat	25	1	1
			60	1	1
AMMONIA - AQUEOUS SOLUTION	NH_3	deb	25	1	1
			60	2	1
		sat	25	1	
			60	2	
- DRY GAS		100	25	1	1
			60	1	1
- LIQUID		100	25	2	1
			60	3	1
AMMONIUM - ACETATE	CH_3COONH_4	sat	25	-	1
			60	2	1
- CARBONATE	$(NH_4)_2CO_3$	all	25	1	1
			60	2	1
BENZENE (BENZOL)	C_6H_6	100	25	3	3
			60	3	
- + LIGROIN		20/80	25	3	
			60	3	
- MONOCHLORINE	C_6H_5Cl	technically pure	25	3	2
			60		
BENZOIC ACID	C_6H_5COOH	sat	25	1	1
			60	2	1
BENZYL ALCOHOL	$C_6H_5CH_2OH$	100	25	1	
			60	2	
BORIC ACID (BORACIC ACID)	H_3BO_3	deb	25	1	1
			60	2	1
		sat	25	1	1
			60	2	1
BRINE		comm	25	1	
			60	1	
BROMIC ACID	$HBrO_3$	10	25	1	1
			60	1	1

	FORMULA	CONC %	TEMP (°C)	PVC	PE
- FLUORIDE	NH_4F	25	25	1	1
			60	2	1
- HYDROXIDE	NH_4OH	28	25	-	1
			60	2	1
- NITRATE	NH_4NO_3	sat	25	1	1
			60	1	1
- PHOSPHATE DIBASIC	$NH_4(HPO_4)_2$	all	25	1	1
			60	1	1
- PHOSPHAT META	$(NH_4)_4P_4O_{12}$	all	25	1	
			60	1	
- PHOSPHATE TRI	$(NH_4)_2HPO_4$	all	25	1	
			60	1	
- PERSULFATE	$(NH_4)_2S_2O_8$	all	25	1	
			60	1	
- SULFIDE	$(NH_4)_2S$	deb	25	1	1
			60	2	1
		sat	25	1	1
			60	1	1
- SULFHYDRATE	NH_4OHSO_4	dil	25	1	1
			60	2	1
		sat	25	1	1
			60	1	1
AMYLACETATE (PENTYL ACETATE)	$CH_3CO_2CH_2(CH_2)_3CH_3$	100	25	3	1
			60	3	2
AMYLALCOHOL	$CH_3(CH_2)_3CH_2OH$	nd	25	1	1
			60	2	1
ALNILINE (PHENYLAMINE	$C_6H_5HN_2$	all	25	3	2
			60	3	2
OR AMINOBENZENE) - CHLORHYDRATE (ANILINE HYDROCHLORIDE)	$CH_6H_5NH_2HCl$	nd	25	2	2
			60	3	2
ANTIMONY - TRICHLORIDE	$SbCl_3$	100	25	1	1
			60	1	1
ANTHRAQUINONE (SULFONIC ACID)	suspension	25	1	1	
			60	2	-
AQUA REGIA	$HCl+HNO_3$	100	25	2	3
			60	2	3
ARSENIC ACID	H_3ASO_4	deb	25	1	1
			60	2	1
		80	25	1	1
			60	2	1
BARIUM CARBONATE	$BACO_3$	all	25	1	1
			60	1	1
- CHLORIDE	$BaCl_2$	10	25	1	1
			60	1	1
- HYDROXIDE	$Ba(OH)_2$	all	25	1	1
			60	1	1
- SULFATE	$BaSO_4$	nb	25	1	1
			60	1	1
- SULFIDE	BaS	sat	25	1	
			60	1	
BEER		comm	25	1	1
			60	1	
BENZALDEHYDE	C_6H_5CHO	nd	25	3	2
			60	3	2
CHLORAMINE	NH_2Cl	dil	25	1	1
			60		
CHLORIC ACID	$HClO_3$	20	25	1	1
			60	2	3
CHLORINE	Cl_2	sat	25	2	
			60	3	
- DRY GAS		10	25	1	
			60	2	
		100	25	2	
			60	3	
- WET GAS		5 g/m3	25	1	
			60	3	
		10 g/m3	25	2	2
			60	2	
		65 g/m3	25	2	2
			60	2	
- LIQUID		100	25	3	3
			60		

CHEMICAL RESISTANCE TABLE

uPVC Chemical Resistance Chart

	FORMULA	CONC %	TEMP (°C)	PVC	PE
BROMINE	Br_2	100	25	3	3
- LIQUID			60	3	3
- VAPOURS	low	25	2	3	
			60		3
BUTADIENE	C_4H_6	100	25	1	
			60	1	3
BUTANEDIOL	$CH_3CH_2CHOHCH_2OH$	10	25	1	
AQUEOUS			60	3	
		concentrated	25	2	2
			60	3	3
BUTANE	C_4H_{10}	10	25	1	1
GAS			60		1
BUTYL	$CH_3CO_2CH_2CH_2CH_2CH_3$	100	25	3	3
- ACETATE (BUTANATE)			60	3	3
- ALCOHOL (BUTANOL)	C_4H_9OH		25	1	1
			60	2	1
- PHENOL	$C_4H_9C_6H_4OH$	100	25	2	3
			60	2	3
BUTYLENE	$C_4H_6(OH)_2$	100	25		1
GLYCOL			60	2	1
BUTYRIC ACID	$C_2H_5CH_2COOH$	20	25	1	1
(BUTANOIC ACID)			60	2	2
		concentrated	25	3	3
			60	3	3
CALCIUM	$Ca(HSO3)_2$	nd	25	1	1
- BISULFITE			60	1	1
- CARBONATE	$CaCO_3$	all	25	1	1
			60	1	1
-CHLORATE	CaHCl	nd	25	1	1
			60	1	1
- CHLORIDE	$CaCl_2$	all	25	1	1
			60	2	1
- HYDROXIDE	$Ca(OH)_2$	all	25	1	
			60	1	
- HYPOCHLORITE	$Ca(OHl)_2$	sat	25		1
			60	2	1
- NITRATE	$Ca(NO_3)_2$	50	25	1	1
			60	1	
- SULFATE	$CaSO_4$	nd	25	1	1
			60	1	1
- SULFIDE	CaS	sat	25	1	2
			60	1	2
CAMPHOR OIL		nd	25	1	3
			60		3
CARBON	CO_2	-	25	1	1
- DIOXIDE AQUEOUS SOLUTION			60	2	1
- GAS		100	25	1	1
			60	1	1
- DISULFIDE	CS_2	100	25	2	2
			60	3	
- MONOXIDE	CO	100	25	1	1
			60	1	1
- TETRACHLORIDE	CCl_4	100	25	2	2
			60	3	3
CARBONIC ACID	H_2CO_3	sat	25	1	
- AQUEOUS SOLUTION			60	1	
- DRY		100	25	1	
			60	1	
- WET		all	25	1	
			60	2	
CARBON OIL		comm	25	1	
			60	1	
DIOCTYLPHTHALATE		all	25	3	1
			60	3	2
DISTILLED WATER		100	25	1	1
			60	1	1
DRINKING WATER		100	25	1	1
			60	1	1
ETHERS		all	25	3	
			60	3	
ETHYL	$CH_3CO_2C_2H_5$	100	25	3	1
- ACETATE (ACETIC ETHER)			60	3	3
- ALCOHOL	CH_3CH_2OH	nd	25	1	1
			60	2	2
(ETHANOL)	CH_3CH_2Cl	all	25	3	2
- CHLORIDE			60	3	
- ETHER	$CH_3CH_2OCH_2CH_3$	all	25	3	
			60	3	
ETHYLENE	$ClCH_2CH_2OH$	100	25	3	

	FORMULA	CONC %	TEMP (°C)	PVC	PE
CHLOROACETIC	$ClCH_2COH$	85	25	1	2
ACID			60	2	3
		100	25	1	3
			60	2	3
CHLOROBENZENE	C_6H_5Cl	all	25	3	
			60	3	
CHLOROFORM	$CHCl_3$	all	25	3	2
			60	3	
CHLOROSULPHONIC	$ClHSO_3$	100	25	2	3
ACID			60	3	3
CHROME ALUM	$KCr(SO_4)_2$	nd	25	1	1
			60	2	1
CHROMIC ACID	CrO_3+H_2O	10	25	1	2
			60	2	3
		30	25	1	2
			60	2	3
		50	25	1	2
			60	2	3
CHROMIC SOLUTION	$CrO_3+H_2O+H_2SO_4$	50/35/15	25	1	3
			60	2	3
CITRIC ACID	$C_3H_4(OH)(CO_2H)_3$	50	25	1	1
AQ.SOL.min.			60	1	1
COPPER	$CuCl_2$	sat	25	1	1
- CHLORIDE			60	1	1
- CYANIDE	$CuCN_2$	all	25	3	
			60	3	
- FLUORIDE	CuF_2	all	25	1	1
			60	1	1
- NITRATE	$Cu(NO_3)_2$	nd	25	1	1
			60	2	1
- SULFATE	$CuSO_4$	dil	25	1	1
			60	1	1
		sat	25	1	1
			60	1	1
COTTONSEED OIL		comm	25	1	
			60	1	
CRESOL	$CH_3C_6H_4OH$	≤90	25	2	1
(HYDROXY TOLUENE)			60	3	
		≥90	25	3	
			60	3	
CRESYLIC ACID	$CH_3CH_6H_4COOH$	50	25	2	
			60	3	
CYCLOHEXANE	C_6H_{12}	all	25	3	1
			60	3	
CYCLOHEXANONE	$C_6H_{10}O$	all	25	3	1
			60	3	
DECAHYDRONAFTALENE	$C_{10}H_{18}$	nd	25	1	1
			60	1	2
DEMINERALIZED		100	25	1	1
WATER			60	1	1
DIBUTYPATHALATE	$C_6H_4(CO_2C_4H_9)_2$	100	25	3	3
			60	3	
DICHLORO-	$Cl_2CHCOOH$	100	25	1	1
ACETIC ACID			60	2	2
DICHLOROETHANE	CH_2ClCH_2Cl	100	25	3	3
(ETHYLENE DICHLORIDE)			60	3	3
DICHLOROETHYLENE	$Cl(CH)_2Cl$	100	25	3	3
			60	3	3
DIETHYL ETHER	$C_2H_5OC_2H_5$	100	25	3	3
			60	3	3
DIGLYCOLIC ACID	$(CH_2)_2O(CO_2H)_2$	18	25	1	1
			60	2	1
DIMETHYLAMINE	$(CH_3)_2NH$	100	25	2	
			60	3	2
HYDROCHLORIC ACID	HCl	≤25	25	1	1
(MURIATIC ACID)			60	2	1
		≤37	25	1	1
			60	1	2
HYDROCYANIC ACID	HCN	deb	25	1	1
(PRUSSIC ACID OR			60	1	1
HYDROGEN CYANIDE)					
HYDROFLUORIC ACID	HF	10	25	1	1
			60	2	1
HYDROGEN	H_2	all	25		
			60		
HYDROGEN	H_2O_2	30	25	1	1
- PEROXIDE (BLEACH)			60	1	1
		50	25	1	2
			60	1	-
- SULFIDE DRY		sat	25	1	1
			60	2	1

CHEMICAL RESISTANCE TABLE

uPVC Chemical Resistance Chart

	FORMULA	CONC %	TEMP (°C)	PVC	PE
ETHYLENE	$ClCH_2CH_2OH$	100	25	3	
- CHLOROHYDRIN			60	3	
- GLYCOL	$HOCH_2CH_2OH$	comm	25	1	1
(ETHANEDIOL OR GLYCOL)			60	1	3
FATTY ACIDS		nd	25	1	
			60	1	
FERRIC	$FeCl_3$	10	25	1	
- CHLORIDE			60	2	
		sat	25	1	1
			60	1	1
- NITRATE	$Fe(NO_3)_3$	nd	25	1	1
			60	1	1
- DEXTRINE (BRITISH GUM	$C_6H_{12}OCH_2O$	nd	25	1	1
OR STARCH GUM)			60	2	1
- SULFATE	$Fe(SO_4)_3$	nd	25	1	1
			60	1	1
FERROUS	$FeCl_2$	sat	25	1	1
- CHLORIDE			60	1	1
- SULFATE	$FeSO_4$	nd	25	1	1
			60	1	1
FERTILIZER		≤ 10	25	1	1
			60	1	1
		sat	25	1	1
			60	1	1
FLUORINE GAS	F_2	100	25	2	2
DRY			60	3	3
FLUROSILICIC ACID	H_2SiF_6	32	25	1	1
			60	1	1
FORMALDEHYDE	HCOH	-	25	1	1
			60	2	1
FORMIC ACID	HCOOH	50	25	1	1
			60	2	1
		100	25	1	1
			60	3	1
FRUIT PULP AND JUICE		comm	25	1	1
			60	1	
FUEL OIL		100	25	1	
			60	1	
		comm	25	1	-
			60	1	2
FURFUROLE	$C_5H_3OCH_2OH$	nd	25	3	2
ALCOHOL			60	3	2
GAS EXHAUST		all	25	1	
- ACID			60	1	
- WITH NITROUS		traces	25	1	1
- VAPOURS		60	1	1	
GAS PHOSGENE	CICOCI	100	25	1	2
			60	2	2
GELATINE		100	25	1	1
			60	1	-
GLUCOSE	$C_6H_{12}O_6$	all	25	1	1
(DEXTROSE)			60	2	1
GLYCERINE	$HOCH_2CHOHCH_2OH$	all	25	1	1
AQ.SOL(GLYCEROL)			60	1	1
GLYCOGLUE		10	25	1	1
AQUEOUS			60	1	1
GLYCOLIC ACID	$HOCH_2COOH$	37	25	1	1
			60	1	1
HEPTANE	C_7H_{16}	100	25	1	1
			60	2	3
HEXANE	C_6H_{14}	100	25	1	1
			60	2	2
HYDROBROMIC ACID	HBr	≤10	25	1	1
			60	1	1
		48	25	1	1
			60	2	1
METHYLENE CHLORIDE	CH_2Cl_2	100	25	3	3
(DICHLOROMETHANE)			60	3	
METHYLSULPHORICACID	CH_3COOSO_4	50	25	1	2
			60	2	2
		100	25	1	3
			60	2	3
MILK		100	25	1	1
			60	1	
MINERALACIDOULOUS		nd	25	1	1
WATER			60	1	1
MOLASSES		comm	25	1	1
			60	2	2
NAPHTA		100	25	2	2
			60	3	3
NAPHTALINE		100	25	1	1
			60	2	

	FORMULA	CONC %	TEMP (°C)	PVC	PE
- SULFIDE WET		sat	25	1	1
			60	2	1
HYDROSUPHITE		≤10	25	1	
			60	2	
HYDROXYLAMINE	$(H_2NOH)_2H_2SO_4$	12	25	1	1
SULPHATE			60	1	
ILLUMINATING		100	25	1	1
GAS			60		
IODINE	I_2	3	25	2	
- DRY AND WET			60	3	
- TINCTURE		≤3	25	2	2
			60	3	3
ISOCTANE	C_8H_{18}	100	25	1	2
			60		
ISO-OCTANE	$(CH_3)_3CCH_2(CH_3)_2$				
ISOPROPYL	$(CH_3)_2CHOCH(CH_3)_2$	100	25	2	2
-ETHER			60	3	3
- ALCOHOL	$(CH_3)_2CHOH$	100	25		
(ISOPROPANOL)			60	2	
LACTIC ACID	$CH_3COHCOOH$	≤28	25	1	1
			60	2	1
LANOLINE		nd	25	1	
			60	2	1
LEAD ACETATE	$Pb(CH_3COO)_2$	sat	25	1	1
			60	1	-
LINSEED OIL		comm	25	1	
			60	2	2
LUBRICATING OILS		comm	25	1	3
			60	1	
MAGNESIUM	$MgCO_3$	all	25	1	
- CARBONATE			60	1	
- CHLORIDE	$MgCl_2$	sat	25	1	1
			60	1	1
- HYDROXIDE	$Mg(OH)_2$	all	25	1	
			60	1	
-NITRATE	$MgNO_3$	nd	25	1	1
			60	1	1
- SULFATE	$MgSO_4$	dil	25	1	1
			60	1	1
		sat	25	1	1
			60	1	1
MALEIC ACID	COOHCHCHCOOH	nd	25	1	1
			60	1	1
MALIC ACID	$CH_2CHOH(COOH)_2$	nd	25	1	1
(HYDROXYSJCCINIC ACID)			60	-	-
MERCURIC	$HgCl_2$	sat	25	1	
- CHLORIDE			1	1	
			60	1	1
- CYANIDE	$HgCN_2$	all	25	1	
			60	1	
MERCUROUS	$HgNO_3$	nd	25	1	1
NITRATE			60	1	1
MERCURY	Hg	100	25	1	1
			60	2	1
METHYL	CH_3COOCH_3	100	25	-	-
- ACETATE			60	-	-
- ALCOHOL (METHANOL	CH_3OH	nd	25	1	
OR WOODSPIRIT)			60	1	1
- BROMIDE	CH_3Br	100	25	3	3
(BROMOMETHANE)			60		
- CHORIDE	CH_3Cl	100	25	3	1
(CHLOROMETHANE)			60	3	
- ETHYLKETONE	$CH_3COCH_2CH_3$	all	25	3	1
			60	3	2
METHYLAMINE	CH_3NH_2	32	25	2	1
			60	3	2
		≤85	25	1	1
			60	1	2
-ANHYDRIDE	P_2O_5	nd	25	1	1
			60	2	1
PHOSPHORUS	PCl_3	100	25	3	1
TRICHLORIDE			60	3	
PHOTOGRAPHIC		comm	25	1	
-DEVELOPER			60	1	
-EMULSION		comm	25	1	1
			60	1	
PHTHALICACID	$C_6H_4(CO_2H)_2$	50	25	-	1
			60	3	1
PICRICACID	$HOC_6H_2(NO_2)_3$	1	25	1	1
			60	1	-
(2,4,6 TRINITROPENOL)		≥1	25	3	1
			60	3	

CHEMICAL RESISTANCE TABLE

uPVC Chemical Resistance Chart

	FORMULA	CONC %	TEMP (°C)	PVC	PE
NICKEL - CHLORIDE	$NiCl_3$	all	25	1	1
			60	1	1
- NITRATE	$Ni(NO_3)_2$	nd	25	1	1
			60	1	1
- SULFATE	$NiSO_4$	dil	25	1	1
			60	1	2
		sat	25	1	1
			60	1	1
NITRIC ACID	HNO_3	anhydrous	25	3	
			60	3	
		20	25	1	1
			60	2	2
		40	25	1	-
			60	1	2
		60	25	1	3
			60	2	3
		98	25	3	3
			60	3	3
NITROBENZENE	$C_6H_5NO_2$	all	25	3	
			60	3	2
OLEIC ACID	$C_8H_{17}CHCH(CH_2)_7CO_2H$	comm	25	1	-
			60	1	2
OLEUM (FUMING SULPHURIC ACID OR PYROSULPHURIC ACID)	$H_2S_2O_7$	nd	25	3	
			60	3	3
- VAPOURS	low	25	3		
			60	3	
		high	25	3	
			60	3	
OLIVE OIL	comm	25			
			60	2	3
OXALIC ACID	HO_2CCO_2H	10	25	1	1
			60	2	1
		sat	25	1	1
			60	1	1
OXYGEN	O_2	all	25	1	1
			60	1	2
OZONE	O_3	nd	25	1	2
			60	2	3
PALMITIC ACID	$CH_3(CH_2)_{14}COOH$	10	25	1	-
			60	1	
		70	25	1	-
			60	1	
PARAFFIN (ALKANE)		nd	25		
			60	2	2
- EMULSION		comm	25	1	2
			60	1	2
- OIL (KEROSENE)		nd	25	1	
			60	1	
PERCHLORIC ACID	$HClO_4$	100	25	1	1
			60	2	1
		70	25	1	1
			60	2	2
PETROL		100	25	1	
- REFINED			60	1	
- UNREFINED		100	25	1	
			60	1	
PHENOL - AQUEOUS SOLUTION (CARBOLIC ACID)	C_6H_5OH	1	25	1	1
			60		
		≤90	25	2	1
			60	3	
PHENYL HYDRAZINE	$C_6H_5NHNH_2$	all	25	3	2
			60	3	2
- CHLORHYDRATE	$C_6H_5NHNH_3Cl$	sat	25	1	1
			60	3	3
PHOSPHORIC - ACID	H_3PO_4	≤ 25	25	1	1
			60	2	1
		≤50	25	1	1
			60		
BICARBONATE SODIUM HYDROGEN CARBONATE	$NaHCO_3$	nd	25	1	1
		60	1	1	
- BISULFITE	$NaHSO_3$	100	25	1	1
			60	1	1
- BROMIDE	NaBr	sat	25	1	
			60	1	
- CARBONATE	Na_2CO_3	sat	25	1	1
			60	1	1
- CHLORATE	$NaClO_3$	nd	25	1	1
			60	2	1
- CHLORIDE	NaCl	dil	25	1	1
			60	2	1
		sat	25	1	1
			60	1	1

	FORMULA	CONC %	TEMP (°C)	PVC	PE
POTASSIUM - BICHROMATE (POTASSIUM HYDROGENCARBONATE)	$K_2Cr_2O_7$	40	25	1	1
			60	1	
- BORATE	K_3BO_3	sat	25	1	
			60	2	
- BROMATE	$KBrO_3$	nd	25	1	
			60	2	
- BROMIDE KBr		sat	25	1	1
			60	1	
- CARBONATE (POTASH)	K_2CO_3	sat	25	1	1
			60	1	1
- CHROLIDE (POTASSIUM MURIATE)	KCl	sat	25	1	1
			60	1	1
- CHROMATE	K_2CrO_4	40	25	1	1
			60	1	1
- CYANIDE	KCN	sat	25	1	1
			60	1	1
- FERROCYANIDE	$K_4Fe(CN)_63H_2O$	100	25	1	1
			60	1	1
- FLUORIDE	KF	sat	25	1	
			60	1	
- HYDROXIDE (CAUSTIC POTASH)	KOH	≤60	25	1	1
			60	2	1
- NITRATE KNO_3 (NITRE, SALTPETRE)	sat	25	1	1	
			60	1	1
- PERBORATE	KBO_3	all	25	1	
			60	1	
- PERBORATE	KBO_3	all	25	1	
			60		
- PERMANGANATE (PERMANGANATE OF POTASH)	$KMnO_4$	10	25	1	1
			60	1	1
- PERSULFATE	$K_2S_2O_8$	nd	25	1	1
			60	2	1
- SULFATE	K_2SO_4	sat	25	1	1
			60	2	1
PROPANE - GAS	C_3H_8	100	25	1	1
			60		
- LIQUID		100	25	1	2
			60		
PROPYL ALCOHOL (PROPANOL)	C_3H_7OH	100	25	1	1
			60	2	1
PYRIDINE	$CH(CHCH)_2N$	nd	25	3	1
			60	3	2
RAIN WATER		100	25	1	1
			60	1	1
SEA WATER		100	25	1	1
			60	1	1
SILICIC ACID	H_2SiO_3	all	25	1	1
			60	1	1
SILICONE OIL		nd	25	1	1
			60	3	2
SILVER - CYANIDE	AgCN	all	25	1	
			60	1	
- NITRATE	$AgNO_3$	nd	25	1	1
			60	2	1
- PLATING SOLUTION		comm	25	1	
			60	1	
SOAP - AQUEOUS SOLUTION		high	25	1	
			60	2	
SODIC LYE		≤60	25	1	
			60	1	
SODIUM - ACETATE	CH_3COONa	100	25	1	1
			60	1	1
-FUMING (OLEUM)		60	3	2	
		all	25	2	
			60	3	
- NITRIC AQUEOUS SOLUTION	$H_2SO_4+HNO_3+H_2O$	43/49/3	25	1	3
			60	2	3
		50/50/0	25	2	3
			60	3	3
		10/20/70	25	1	2
			60	1	2
TALLOW EMULSION		comm	25	1	1
			60	1	2
TANNIC ACID	$C_{14}H_{10}O_9$	10	25	1	1
			60	1	1
TARTARIC ACID	$HOOC(CHOH)_2COOH$	all	25	1	1
			60	2	1

CHEMICAL RESISTANCE TABLE

uPVC Chemical Resistance Chart

	FORMULA	CONC %	TEMP (°C)	PVC	PE
- CYANIDE	$NaCN$	all	25	1	
			60	1	
- FERROCYANIDE	$Na_4Fe(CN)_6$	sat	25	1	1
			60	1	1
- FLUORIDE	NaF	all	25	1	1
			60	1	1
- HYDROXIDE	$NaOH$	60	25	1	1
			60	1	1
- HYPOCHLORITE	$NaOCl$	deb	25	1	1
			60	2	
- HYPOSULFITE	$Na_2S_2O_3$	nd	25	1	
			60	1	
- NITRATE	$NaNO_3$	nd	25	1	1
			60	1	1
- PERBORATE	$NaBO_3H_2O$	all	25	1	
			60	1	
- PHOSPHATE di	Na_2HPO_4	all	25	1	
			60	1	
- PHOSPHATE tri	Na_3PO_4	all	25	1	1
			60	1	1
- SULPHATE	Na_2SO_4	dil	25	1	
			60	1	
		sat	25	1	1
			60	1	1
- SULFIDE	Na_2S	dil	25	1	1
			60	2	1
		sat	25	1	1
			60	1	1
- SULFITE	Na_2SO_3	sat	25	1	
			60	1	
STANNIC CHLORIDE	$SnCl_4$	sat	25	1	1
			60	1	1
STANNOUS CHLORIDE	$SnCl_2$	dil	25	1	1
			60	1	1
STEARIC ACID	$CH_3(CH_2)_{16}CO_2H$	100	25	1	
			60	1	2
SUGAR SYRUP		high	25	1	1
			60	2	1
SULPHUR	S	100	25	1	
			60	2	
- DIOXIDE AQUEOUS	SO_2	sat	25	1	1
			60	2	
- DIOXIDE DRY		all	25	1	1
			60	1	1
- DIOXIDE LIQUID		100	25	2	1
			60	3	2
- TRIOXIDE	SO_3	100	25	2	3
			60	2	3
SULPHURIC ACID	H_2SO_4	≤ 10	25	1	1
			60	1	1
		≤75	25	1	1
			60	2	2
		≤80	25	1	2
			60	2	2
		≤96	25	2	2

	FORMULA	CONC %	TEMP (°C)	PVC	PE
TETRACHLORO - ETHANE	$CHCl_2CHCl_2$	nd	25	3	2
			60	3	3
- ETHYLENE (PERCHLOROETHYLENE)	CCl_2CCl_2	nd	25	3	2
			60	3	3
TETRAETHYLLEAD	$Pb(C_2H_5)_4$	100	25	1	1
			60	2	
TETRAHYDROFURAN	C_4H_8O	all	25	3	2
			60	3	3
THIONYL CHLORIDE	$SOCl_2$	-	25	3	3
			60		
THIOPHENE	C_4H_4S	100	25	3	2
			60	3	2
TOLUENE	$C_6H_5CH_3$	100	25	3	2
			60	3	3
TRANSFORMER OIL		nd	25	1	1
			60	2	2
TRICHLORO- ACETIC ACID	CCl_3COOH	≤50	25	1	1
			60	3	2
TRICHLOROETHYLENE	Cl_2CCHCl	100	25	3	2
			60	3	2
TRIETHANOLAMINE	$N(CH_2CH_2OH)_2$	100	25	2	1
			60	3	
TURPENTINE		100	25	2	2
			60	2	3
UREA AQUEOUS SOLUTION	$CO(NH_2)_2$	≤ 10	25	1	1
			60	2	1
		33	25	1	1
			60	2	1
URINE		nd	25	1	1
			60	2	1
URIC ACID	$C_5H_4N_4O_3$	10	25	1	
			60	2	
VASELINE OIL		100	25	1	1
			60	3	2
VINYL ACETATE	$CH_3CO_2CHCH_2$	100	25	3	
			60	3	
WHISKEY		comm	25	1	
			60	1	
WINES		comm	25	1	1
			60	1	
WINE VINEGAR		comm	25	1	1
			60	2	1
ZINC - CHLORIDE	$ZnCl_2$	dil	25	1	1
			60	1	1
		sat	25	1	1
			60		
- CHROMATE	$ZnCrO_4$	all	25	1	
			60	1	
- CYANIDE	$Zn(CN)_2$	all	25	1	
			60		
- NITRATE	$Zn(NO_3)_2$	nd	25	1	
			60	1	
- SULFATE	$ZnSO_4$	dil	25	1	1
			60	1	1
		sat	25	1	1
			60	1	1

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