TABLE 7.2: METAL, CARBON, CERAMIC, RUBBER, PLASTIC AND WOOD CONSTRUCTION MATERIALS–CORNING

MATERIALS
X - Very Good Service
\+ - Moderate Service
– - Limited or Variable Service
o - Unsatisfactory
Blank - No Information

CHEMICALS
SOLIDS ASSUMED IN SOL'N.
ROOM TEMPERATURES ASSUMED UNLESS OTHERWISE STATED

	METALS																												CARBONS & CERAMICS								
CHEMICALS	CARBON STEEL, Fe	CAST IRON & DUCTILE IRON Fe	304 STAINLESS STEEL: Fe, 18Cr, 8Ni	316 STAINLESS STEEL: Fe, 16Cr, 10Ni, 2Mo	347 STAINLESS STEEL: Fe, 17Cr, 9Ni; (Cx10)Cb	NI-RESIST IRON: Fe, 14Ni, 2Cr, 2Si	DURIMET 20: CARPENTER 20; Fe; 4Cu, 20Cr, 29Ni, 2Mo, 1Si	WORTHITE 3Mo, 2Cu, Fe, 20Cr, 24Ni, 3Si	DURIRON: Fe, 14Si; Durichlor, Fe, 14Si 3Mo*	COPPER; BRASS; BRONZES; EVERDUR	ALUMINUM: Al (and Alloys)	LEAD, Pb	MONEL: 67Ni, 30Cu, 1.4 Fe	NICKEL Ni	INCONEL: 76Ni, 15Cr, 8Fe	HASTELLOY B: Ni, 26Mo, 4Fe	HASTELLOY C: Ni, 16Mo, 4Fe, 14Cr, 4W	HASTELLOY D: Ni, 8Si, 3Cu	CHLORIMET 3: 3Fe, 1Si, 60Ni, 18Mo, 18Cr	CHLORIMET 2: 63Ni, 32Mo, 3Fe, 1Si	STELLITE: Co, 28Cr, 4W	ZIRCONIUM; Zr	TANTALUM; Ta	SILVER; Ag	PLATINUM; Pt	DOWMETAL: (Mg alloys)	TITANIUM; Ti	MOLYBDENUM Mo	CARBON & GRAPHITE	GLASS, "PYREX" brand	SILICAWARE	SILICATE CEMENTS	CHEMICAL STONEWARE	TRANSITE (asbestos & cement)	CHEMICAL PORCELAIN	CONCRETE-Unbonded	CONCRETE-Mortar Bonded
ACETIC ACID, 100%, CH_3COOH	o	o	+	x	–	o	x	x	x	o	x	o	–	+	–	x	x	x	x	x	x	x	x	x	x		x		x	x	x	x	x		x		
ACETIC ACID, Dilute	o	o	x	x	–	o	x	x	x	x	–	–	–	o	+	x	x	+	x	x	x	x	x	x	x		x	x	x	x	x		x		x		
ACETIC ANHYDRIDE, $(CH_3CO)_2O$	–	+	x	x	x	–	x	x	x	–	–	o	–	–	+	+	x	+	x	x	x		x	x	x		x		x	x	x	x	x		x		
ACETONE, CH_3COCH_3	x		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x		x		x			x		x	x	x		x	x	x		
ACETYL CHLORIDE, CH_3COCl	o		–	x			x		x	o			+						x	x										x					x		
ALUMINUM CHLORIDE, $AlCl_3$	o	o	o	o	o	–	x	o	x	–	o	o	o	–	–	x	+	x	x	x	–	x	x	x	x		x		x	x	x	x	x		x		
" HYDROXIDE, $Al(OH)_3$			x	x			x	x	+	x	x		+	+					x	x			x							x					x		
" SULFATE, $Al_2(SO_4)_3$	o		–	–	x	–	x	x	x	–	x	x	–	–	–	x	x	x	x	x	x	x	x	x	x		x		x	x	x		x	x	x		
ALUMS, CONC., $Al_2(SO_4)_3 \cdot K_2SO_4$, etc.	o		o	–	–		+		x	–	–	x							x	x			x		x				x	x					x		
ALUMS, DILUTE	o	o	x	–	–	–	x	x	x	–	x	+	+	+		+	+		x	x		x	x	x	x				x	x	x	x	x	x	x		
AMINES, various	x	x	x	x	x		x	x	x	–	–					x	x	x	x	x	x		–	x	x				x	x			x		x		
AMMONIA (Gas), Moist, NH_3	x		x	x	x	x	x		x	o	o	–	–	–	–	x	x	x	x	x	x		–	x	x	x			x	x	x	o	x	x	x		
AMMONIUM CARBONATE, $(NH_4)_2CO_3$	+	+	+	+	x		x		x	–	–		+	x	+	+	+	+	x	x			x							x		x			x		
" CHLORIDE, NH_4Cl	o	o	o	–	–	x	x	x	x	o	o	–	+	+	–	+	+	x	x	x	–	x	x	x	x		x	+	x	x	x	x	x	x	x	x	
" HYDROXIDE, NH_4OH	x	x	x	x	x	x	x		+	o	–	+	o	o	x	+	+	+	x	x	x	x	–	x	x	x	x	–	x	–			x		x		
" NITRATE, NH_4NO_3	–		x	x	x	–	x	x	x	o	o		x		–	o	x	o	x	x			x						x	x	x		x		x	x	
" PERSULFATE, $(NH_4)_2S_2O_8$	o		x	x	x		x	x	x	–	–		o	o	–	o	x	o	x	x			x							x							
" PHOSPHATE, $(NH_4)_2HPO_4$	o		x	x		–	x		x	o									x	x										x					x		
" $(NH_4)H_2PO_4$	–		x	x		x	x		x	–	–								x	x										x					x		
" $(NH_4)_3PO_4$	x	–	x	x	x	x	x	x	x	o	–	x	x	x	x	x	x	x	x	x	x		x						x	x			x		x		
" SULFATE, $(NH_4)_2SO_4$	x		–	–	+	x	x	x	x	–	–	–	+	+	x	x	x	x	x	x	x	x	x	x			x		x	x	x		x		x		
AMYL ACETATE, $C_5H_{11}COOCH_3$	–		x	x	x	x	x	x	x	–	x		+	+	+	x	x	x	x	x			x						x	x	x		x		x	x	
" ALCOHOL, $C_5H_{11}OH$	x		x	x			x		x	x	x								x	x									x	x	x		x	x	x		
" CHLORIDE, $C_5H_{11}Cl$	x		–	–	–		x	–	x	x	o		–	+	–	x	x	x	x	x			x						x	x	x		x		x		
ANTIMONY TRICHLORIDE, $SbCl_3$	o		o	o	o				x	–	o	x	x	x	x	x	x		x	x			x							x	x		x		x		
ARSENIC ACID, H_3AsO_4	o		–	–		x	x	x	x	–		–			–				x	x			x	x					x	x					x		
BARIUM CARBONATE, $BaCO_3$			x	x	x		x	x	x	x	o		+	x	x	x	x	x	x	x		x	x				x			x					x		
" HYDROXIDE, $Ba(OH)_2$	x			x		x	x	x	+	o	o		x	x		+	+	+	x	x		x	x				+			x					x		
" SULFIDE, BaS	o		x	x		x	x	x	x	o	o		–						x	x				o						–					x		
BENZALDEHYDE, C_6H_5CHO	x		x	x			x		x		–	o							x	x									x	x	x		x	x	x	x	
BENZENE, C_6H_6	+	+	x	x	x	x	x	x	x	x	x	+	+	+	x	+	+	+	x	x	x		x	x	x	x			x	x		x	x		x		
BENZOIC ACID, C_6H_5COOH	o		x	x	+		x	x	x	+	x	o	+	+	+	x	x	x	x	x			x	x						x					x		
BORAX, $Na_2B_4O_7$	x	–	x	x	x	x	x		x	–	–		x	x	x				x	x				o					x	x	x		x	x	x	x	
BORIC ACID, H_3BO_3	o	o	+	+	+	–	x	x	x	+	+	+	+	+	x	x	x	x	x	x	x		x	x	x		x		x	x		x	x		x		
BROMINE, Wet, Br_2	o		o	o	o	o	o	o	o	o	o	–	o	o	o	o	x	o	x	o	–		x	o	–		o		o	x	x		x		x	x	
BUTANOL, C_4H_9OH	x		x	x			x		x	x	x		x	x	x	x	x	x	x	x										x					x		
BUTYL ACETATE, $C_4H_9COOCH_3$	–			x			x	x	x	x	x	x	+			x	x	x	x	x			x			–			x	x	x		x	x	x	x	x
BUTYRIC ACID, C_3H_7COOH	o	o	o	x	o		x	x	x	–	–	o	+	+	+	x	x	x	x	x			x				x			x					x		
CALCIUM BISULFATE, $CaHSO_4$	o		o	x		o	x			o	o		o	o					x	x										x					x		
" BISULFITE, $CaHSO_3$	x		o	x		o	x	x	o	–	–	x	o						x	x							x			x	x		x		x		
CALCIUM CARBONATE, $CaCO_3$	x		x	x		x	x	x	x	x	o	x	x	x	x	x	x	x	x	x			x				x			x					x		
" CHLORATE, $CaClO_3$			–	x	o		+	–	+	–			+	+	+		+	+	+	+			x						x	x					x		
" CHLORIDE, $CaCl_2$	+	+	–	–	–	–	+	x	x	+	–	o	+	+	+	+	x	+	x	x	–	x	x				x		x	x	x	x	x	x	x	x	
" HYDROXIDE, $Ca(OH)_2$	x		x	x	x	x	x	x	+	+	–		x	x	x	x	x	x	x	x			x				x			x					x		
" HYPOCHLORITE, $Ca(OCl)_2$	–	o	o	–	–	–	–	–	x	o	o	o	o	o	o	o	–	o	–	o	o	x	x		x		x		x	x	x	o	x		x	x	
" SULFATE, $CaSO_4$	–		x	x			x	x	x	x	–		+			+	+	+	x	x			x							x					x		
CARBON DIOXIDE (Dry), CO_2	x		x	x	x	x	x		x	x	x	x	x	x	x	x	x		x	x				x				x		x					x		
" " (Wet or H_2CO_3)	–	–	x	x	x	–	x	x	x	–	–	–	–	x	x	x	x	x	x	x	x		x	x					x	x	x		x	x	x	x	x
CARBON DISULFIDE, CS_2	x	+	+	+	x	x	x	x	x	–	–	+	+	+	+				x	x			x	–					x	x	x	x	x		x		
CARBON TETRACHLORIDE (Moist) CCl_4	–	–	o	–	–	–	x	x	x	–	–	+	+	+	x	+	x	+	x	x	x	x	x	x			x		x	x	x	x	x	x	x	x	
CHLORACETIC ACID, $ClCH_2CO_2H$	o	o	o	o	o		–	o	x	o	o	o	–	–	+	x	x	–	x	x	–		x	x	x		x			x			x		x		
CHLORIC ACID, $HClO_3$			o	o																				o						x							
CHLORINE (DRY), Cl_2	x	x	x	x	x		x	x	x	x	o	x	x	x	x	x	x	x	x	x			x	x	x		o	+	x	x	x		x		x		
" (Wet), Cl_2	o	o	o	o	o	o	o	o	–	o	o	–	o	–	o	o	x	o	x	o		o	x	x	x		–	o	–	x	x		x		x		
CHLOROBENZENE, C_6H_5Cl	x		x	x	x		x	x	x	+			–	–	–				x	x			x							x	x		x		x		
CHLOROFORM, $CHCl_3$	x		x	x	x		x	x	x	x	–	x	x	x	x	x	x	x	x	x			x				x		x	x	x		x		x		

*NOTE: Duriron is as shown. Durichlor is also satisfactory on Chlorides and HCl

(continued)

TABLE 7.2: METAL, CARBON, CERAMIC, RUBBER, PLASTIC AND WOOD CONSTRUCTION MATERIALS—CORNING (continued)

MATERIALS
X - Very Good Service
+ - Moderate Service
— - Limited or Variable Service
o - Unsatisfactory
Blank - No Information

CHEMICALS
SOLIDS ASSUMED IN SOL'N.
ROOM TEMPERATURES ASSUMED
UNLESS OTHERWISE STATED

CHEMICALS	METALS																												CARBONS & CERAMICS								
	CARBON STEEL, Fe	CAST IRON & DUCTILE IRON Fe.	304 STAINLESS STEEL: Fe, 18Cr, 8Ni	316 STAINLESS STEEL: Fe, 16Cr, 10Ni, 2Mo	347 STAINLESS STEEL: Fe, 17Cr, 9Ni; (Cx10)Cb	NI-RESIST IRON: Fe, 14Ni, 2Cr, 2Si	DURIMET 20: CARPENTER 20; Fe; 4Cu, 20Cr, 29Ni, 2Mo, 1Si	WORTHITE 3Mo, 2Cu, Fe, 20Cr, 24Ni, 3Si	DURIRON; Fe, 14Si; Durichlor, Fe, 14Si, 3Mo*	COPPER: BRASS; BRONZES; EVERDUR	ALUMINUM; Al (and Alloys)	LEAD, Pb	MONEL; 67Ni, 30Cu, 1.4 Fe	NICKEL Ni	INCONEL; 76Ni, 15Cr, 8Fe	HASTELLOY B: Ni, 26Mo, 4Fe	HASTELLOY C: Ni, 16Mo, 4Fe, 14Cr, 4W	HASTELLOY D: Ni, 8Si, 3Cu	CHLORIMET 3: 3Fe, 1Si, 60Ni, 18Mo, 18Cr	CHLORIMET 2: 63Ni, 32Mo, 3Fe, 1Si	STELLITE; Co, 28Cr, 4W	ZIRCONIUM; Zr	TANTALUM; Ta	SILVER; Ag	PLATINUM; Pt	DOWMETAL; (Mg alloys)	TITANIUM; Ti	MOLYBDENUM Mo *NOTE: Duriron is as shown. Durichlor is also satisfactory on Chlorides and HCl	CARBON & GRAPHITE;	GLASS, "PYREX" brand	SILICAWARE	SILICATE CEMENTS	CHEMICAL STONEWARE	TRANSITE (asbestos & cement)	CHEMICAL PORCELAIN	CONCRETE-Unbonded	CONCRETE-Mortar Bonded
CHROMIC ACID, $Cr O_3$ sol'n	—	+	o	—	o	o	+	x	x	o	+	+	o	o	—	o	+	o	+	o	x	x	x	o	x	—	x	+	o	x	x	x	x		x		
COPPER CHLORIDE, $Cu Cl_2$	o		o	o	o		o	x	o	o	o		o	o	o	x	x	x	—	o		—	x	+			x			x	x		x		x		
" CYANIDE, $Cu(CN)_2$			x	x	x		x	x	x	o	o		o	o	o	x	x	x	x	x			x							+					x		
" NITRATE $Cu (NO_3)_2$	o		x	x			x	x	x	o	o		o	o	o	o	x	o	x	x			x	o						x					x		
" SULFATE $Cu SO_4$	o	o	x	x	x	—	x	x	x	o	o	—	—	—	—	x	x	x	x	x	x	x	x	—	x				x	x	x	x	x		x		
CRESYLIC ACID	o		x	x	x		x	x	x	o	—		—	x	—	—	—	—	x	x										x					x		
DICHLORETHANE, $C_2 H_4 Cl_2$	o		x	x	x		x		x				x	x	x	x	x		x	x										x					x		
DIETHYLAMINE, $(C_2 H_5)_2 NH$	x			x			x												x	x									x	x					x		
DIPHENYL, $C_6H_5C_6H_5$	x		x				x		x					x					x	x										x					x		
ETHERS, Various	x		x	x	x		x	x	x	x	x	x	+	+	+	x	x	x	x	x									x	x	x		x	x	x	x	x
ETHYL ACETATE, $C_2 H_5 COOCH_3$	x		x	x		x	x	x	x	x	x		x	x	x	x	x	x	x	x			x						x	x	x		x	x	x	x	x
" ALCOHOL, C_2H_5OH	+	+	x	x	x	x	x	x	x	+	—	+	+	+	+	x	x	+	x	x		x	x				x		x	x	x	x	x	x	x		x
ETHYL CHLORIDE, $C_2 H_5 Cl$	x		x	x	x	o	x	-	x	-	-		+	+	x	x	x	x	x	x			x						x	x					x		
ETHYLENE CHLOROHYDRIN, $Cl (C_2 H_4)OH$	x		x				x		x			x							x	x									—	x	x		x		x		
" DICHLORIDE, $C_2H_4 Cl_2$	x		x	x	x		x		x	—	o	x	+	+	—	x			x	x			x				x		x	x	x		x		x		
" GLYCOL, $CH_2 OHCH_2 OH$	—	+	x	x	x	x	x	x	x	+	x	+	+	+	+				x	x									x	x	x	x	x		x		
" OXIDE, $CH_2 OCH_2$	x		x				x		x										x	x										x					x		
FATTY ACIDS, Various	o	o	x	x	x	—	x	x	x	—	x	o	+	x	x	x	x	x	x	x	x		x	x	x				x	x	x	x	x	x	x	x	x
FERRIC CHLORIDE, $FeCl_3$	o	o	o	o	o	o	o	o	—	o	o	o	o	o	o	o	+	o	—	o	—	o	x	o			x	o	x	x	x	x	x		x	x	
" NITRATE, $Fe(NO_3)_3$	o		x	x	x		x	x	x	o	o		o	o	o	o	+	o	x				x	o						x					x		
" SULFATE, $Fe_2 (SO_4)_3$	o		—	x	x	o	x	x	x	o	o	x	o	o	o	o	+	o	x		x		x	o			x		—	x	x		x		x		
FERROUS CHLORIDE, $Fe Cl_2$	o	o	o	o	o	x	—	o	+	o	o	o	o	o	o	—	+	+	+	—			x	o					x	x	x	x	x		x		
" SULFATE, $FeSO_4$	o	o	+	o	x	—	x	x	x	—	+	—	o	o	o	+	+	+	x	x	—		x	o			x		x	x	x	x	x		x		
FLUORINE, F_2			o	o			—		o	o	o	—	o	x	x	+	x		+				o	x			o	o	o	o					o		
FORMALDEHYDE, CH_2O	—	—	—	—	—	—	x	x	x	x	—	o	—	x	—	x	x	x	x	x	x		x	x		—	x		x	x	x		x		x	x	
FORMIC ACID, HCOOH	o	o	+	+	·		x	x	x	o	—	o	+	+	—	—	x	—	x	x	x	x	x				o	+	x	x	x	x	x		x		
FUEL OIL	x		—	x	x	x	x		x	x	x		x	x	+	x	x	x	x	x			x							x					x		
GALLIC ACID, $(OH)_3 C_6H_2COOH$	o		x	x	x		x		x	x	x		—	+	+	x	x	x	x	x										x					x		
GASOLINE, Refined	x		x	x	x	x	x		x	x	x		+	+	+	x	x	x	x	x			x						x	x	x		x		x		
GLYCEROL, $CH_2 OH.CHOH CH_2 OH$	+		+	+	+	x	x		x	x	x	—	+	x	x	x	x	x	x	x				x			x		x	x	x		x		x	x	
HYDROBROMIC ACID, HBr	o		o	o	o		o	o	—	—	o	o	o	o	o	x	—	—	—	+			x				x		x	x	x		x		x		
HYDROCHLORIC ACID, (Conc.), HCl	o	o	o	o	o	o	o	o	+	o	o	o	o	o	o	+	—	o	+	x	x	x	x	x	x		o	x	x	x	x	x	x		x		
" (Dilute)	o	o	o	o	o	—	o	o	x	o	o	—	—	—	—	+	—	—	x	x	—	x	x	x	x		—		x	x	x		x		x		
" (Dry Gas)	x		—	x			x		x		o	—	—	—	—	x	x		x	x		x	x						x	x					x		
HYDROCYANIC ACID, (Conc.), HCN	o		x	x	x	x	x	x	x	o	x	—	x	—	—	x	x	x	x	x			x							x					x		
" " (Dil. & Gas)			o	o																			x							x					x		
HYDROFLUORIC ACID, (Conc.), HF	—	o	o	o	o	o	+	—	o	o	o	o	+	—	—	+	+	+	x	x	—		o	x	x	x	o		o	o			o		o		
" " (Dilute)	o	o	o	o	o	—	+	o	o	—	o	+	+	+	—	+	+	+	x	x	—		o		x	o	o		x	o		o	o		o		
HYDROFLUOSILICIC ACID, H_2SiF_6	o		o	o	o	o	+		o	o	—		—	—	—	—	—	—	x	x			o						x	—					o		
HYDROCARBONS (Aliphatic)	x	x	x	x	x	x	x		x	x	x		x	x	x	x	x	x	x	x	x		x	x	x	x		+	x	x	x		x		x		
" (Aromatic)	x	x	x	x	x	x	x		x	x	x		x	x	x	x	x	x	x	x	x		x	x	x	x			x	x	x		x		x		
HYDROGEN GAS, H_2	x						x		x	x	x	x	x	x					x	x				x				x		x					x		
HYDROGEN PEROXIDE (Conc.), $H_2 O_2$	o	o	+	o	—	o	+	—	+	o	x	—	—	—		—	x	—	x	x	x		x	o	x		x			x	x		x		x		
" " (Dilute)	o	o	+	+			x	x	x	o	x	o	+	+	+	x	x	—	x	x	x	x	x	x	x		—		x	x	x	x	x		x		
HYDROGEN SULFIDE (Dry) $H_2 S$	x		—	x		—	x		x	o	o	x	—	x	+	—	x	—	x	+			x	o				+		x	x		x		x	x	
" " (Wet)	—		—	x	—	—	x	x	+	o	o	o	o	x	+	—	+	—	x	+				o						x					x		
IODINE, I_2 Wet	o	o	o	o	o		o		o	o	o	o	o	o	—	o	—	o	+	o	—		x	—	x	—			o	x	—		x		x	x	
IODOFORM, CHI_3	o		o	x	x		x		x		x								x	x										x					x		
KEROSENE	x		x	x	x		x		x	x	x		x	x	x	x	x	x	x	x			x						x	x					x		
KETONES, Various	x		x				x		x		—	x							x	x									—	x					x		
LACTIC ACID, $CH_3 CHOHCOOH$	o	o	—	—	x	—	x	x	x	—	—	o	—	—	—	x	x	x	x	x	x	x	x	x	x		x	x	x	x	x		x		x		
LEAD ACETATE, $Pb(CH_3 COO)_2$	o		x	x	+		x	x	x	—	o		x	+		x	x	x	x	x			x				x			x					x		
MAGNESIUM CHLORIDE, $Mg Cl_2$	—	—	—	+	—	x	x	x	x	+	—	o	+	+	+	x	x	x	x	x	—		x	x			x			x	x	x	x	x	x	x	x
" HYDROXIDE, $Mg (OH)_2$	x		x	x	+		x	x	+	—	o		x	x	x	x	x	x	x	x			x	x			x			x					x		
" SULFATE, $Mg SO_4$	+	o	+	+	+	x	x	x	x	+	x	+	+	+	+	x	+	x	x	x		x	x	x			x			x	x	x	x	x	x	x	x
MALEIC ACID, $CO_2 H C_2 H_2 CO_2 H$	o		x	x			x	x	x							x			x	x				x						x					x		

(continued)

TABLE 7.2: METAL, CARBON, CERAMIC, RUBBER, PLASTIC AND WOOD CONSTRUCTION MATERIALS–CORNING (continued)

MATERIALS
X - Very Good Service
+ - Moderate Service
– - Limited or Variable Service
o - Unsatisfactory
Blank - No Information

CHEMICALS
SOLIDS ASSUMED IN SOL'N.
ROOM TEMPERATURES ASSUMED
UNLESS OTHERWISE STATED

	METALS																												CARBONS & CERAMICS								
CHEMICALS	CARBON STEEL, Fe	CAST IRON & DUCTILE IRON Fe.	304 STAINLESS STEEL: Fe. 18Cr, 8Ni	316 STAINLESS STEEL: Fe. 16Cr, 10Ni, 2Mo	347 STAINLESS STEEL: Fe, 17Cr, 9Ni; (Cx10)Cb	NI-RESIST IRON: Fe, 14Ni, 2Cr, 2Si	DURIMET 20: CARPENTER 20; Fe; 4Cu, 20Cr, 29Ni, 2Mo, 1Si	WORTHITE 3Mo, 2Cu, Fe, 20Cr, 24Ni, 3Si	DURIRON; Fe, 14Si; Durichlor, Fe, 14Si, 3Mo*	COPPER; BRASS; BRONZES; EVERDUR	ALUMINUM; Al (and Alloys)	LEAD, Pb	MONEL; 67Ni, 30Cu, 1.4 Fe	NICKEL Ni	INCONEL; 76Ni, 15Cr, 8Fe	HASTELLOY B; Ni, 26Mo, 4Fe	HASTELLOY C; Ni, 16Mo, 4Fe, 14Cr, 4W	HASTELLOY D; Ni, 8Si, 3Cu	CHLORIMET 3; 3Fe, 1Si, 60Ni, 18Mo, 18Cr	CHLORIMET 2; 63Ni, 32Mo, 3Fe, 1Si	STELLITE; Co, 28Cr, 4W	ZIRCONIUM; Zr	TANTALUM; Ta	SILVER; Ag	PLATINUM; Pt	DOWMETAL; (Mg alloys)	TITANIUM; Ti	MOLYBDENUM Mo *NOTE: Duriron is as shown. Durichlor is also satisfactory on Chlorides and HCl	CARBON & GRAPHITE;	GLASS, "PYREX" brand	SILICAWARE	SILICATE CEMENTS	CHEMICAL STONEWARE	TRANSITE (asbestos & cement)	CHEMICAL PORCELAIN	CONCRETE-Unbonded	CONCRETE-Mortar Bonded
MALIC ACID, $CO_2H\ CH_2\ CHOH\ CO_2H$	o		x	x	x		+		x	o	-		+	+	+	x	x	x	x				x							x	x		x		x		
MERCURIC CHLORIDE, $HgCl_2$	o		o	o	o		-	-	+	o	o	-	-		+	o	x	o	+	o		x	x	o			x			x					x		
MERCURY, Hg	x		x	x	x		x		x	o	o	o	+	+	x	x	x	x	x	x				o			-			x					x		
METHANOL, Conc., CH_3OH	+	+	+	+	+	x	x	x	x	+	-	+	+	+	+	x	x	+	x	x		x	x	x						x		x			x		
" (Dilute)	-						x		x	-	-					x	x	-	x	x			x							x					x		
METHYL CHLORIDE, CH_3Cl	o		-	-	+		x	x	x	x		x	x	x	x				x	x			x							x					x		
NAPHTHA, Petroleum	x		x	x	x	x	x		x	x	x		+	+	+	x	x	x	x	x									x	x	x		x		x		
NICKEL CHLORIDE, $NiCl_2$	o		-	-			+	o	+	-	o		-	x		o	x	o	x	x		x	x				x		x	x					x		
" SULFATE, $NiSO_4$	o	o	-	-			x	x	x	+	-	+	+	-	-	o	+	o	x	x		x	x						x	x					x		
NITRATING ACID (>15% H_2SO_4)	x	x	-	-	-		x	x	x	o	o		o	o		o	x	o	x	x	x		-	x	x		-		o	x			x		x		
" " (<15% H_2SO_4)	o		-	-	-		x	x	x	o	o		o	o		o	x	o	x	x	x		-	o	x		x		o	x			x		x		
" " (<15% HNO_3)	o		-	o	-		x		x	o	o		o	o		o	x	o	x	o	x	o	-	o	x		-		o	x			x		x		
" " (< 1% Acid)	o		-	x	-		x		x	o	o		o	o		o	x	o	x		x	o	-	o	x				o	x			x		x		
NITRIC ACID, Conc., HNO_3	o	o	+	+	x		x	x	x	o	-	-	o	o	-	o	+	o	x	o	x	x	x	o	x		x	+	o	x	x	x	x		x		
" " Dilute	o	o	x	x	x	o	x	x	x	o	o	o	o	o	o	o	x	o	x	o	x	x	x	o	x		x	o	-	x	x		x		x		
NITROBENZENE, $C_6H_5NO_2$	x		x	x			x	x	x			o							x	x			x							x					x		
NITROUS ACID, HNO_2	o		x	x	-		x	x	x	x			x	o					x				x							x	x		x		x		
OLEIC ACID, $C_8H_{17}CH:CH(CH_2)_7CO_2H$	-	-	-	x	x	-	x	x	x	-	x	o	x	x	x	x	x	x	x	x	x		x	x	x				x	x	x		x	x	x	x	x
OXALIC ACID, $CO_2H\ CO_2H$	o	o	-	-	-	-	x	x	x	+	-	o	+	-	x	+	+	+	x	x	x	x	x	x	x		-	+	x	x	x	x	x	x	x	x	
PHENOL (Conc.) C_6H_5OH	+	+	-	x	-	x	x	x	x	o	-	-	+	+	x	+	+	+	x	x	x	x	x	x	x	x	-		x	x	x		x	x	x	x	
" (Dilute)	+	+	x	x	x		x		x	-	x	-	+	+	-	+	+	+	x	x		x								x					x		
PHOSPHORIC ACID (100%), H_3PO_4	o	o	-	-	x		x		x		o	+	-	o	-	+	x	x	x	x	x	x	x	+	x			x	+	-	x		x	x	x	x	x
" " (>45% Hot)	o	o	o	o	x	o	x	x	x	o	o	+	o	o	o	-	-	-	x	x	x	-	x		x				x	-		x	o		o		
PHOSPHORIC ACID (>45% Cold)	o	o	–	x	x	–	x	–	x	o	o	+	–	–	–	+	x	+	x	x	x	x	x	x	x		–		x	x			–		–		
" ACID (<45%) "	o	o	–	x	x	–	x	–	x	o	–	+	–	–	–	+	x	+	x	x	x	x	x	x	x		x		x	x			–		–		
" ANHYDRIDE, Dry or Moist	o		x	x			x		x										x	x									x	x							
" " Molten, P_2O_5	x		x	x			x		x	o	o		o	o					x	x										o							
PHTHALIC ANHYDRIDE, $C_6H_4(CO)_2O$	x		x				x	x	x							x	x		x	x			x							x					x		
PICRIC ACID, Sol'n., $HO.C_6H_2(NO_2)_3$			x	x	+		x	x	x	o	–	–	o	o	o	x	x	x	x	x										x					x		
POTASSIUM BROMIDE, KBr	o		–	–			x		x	x	–	x	+	x		x	x	x	x	x			x	o			x			x					x		
" CARBONATE, K_2CO_3	–		x	x		–	x	x	x	–	o	x	x	x	+	x	x	x	x	x			–							–					x		
" CHLORATE, $KClO_3$	x		x	x			x	–	x	–	+		+	+	+	o	x	o	x	o			x							x					x		
" CHLORIDE, KCl	x		–	–		x	x	x	x	–	–		+	+		x	x	x	x	x			x				x			x					x		
" CYANIDE, KCN	x		x	x		x	x		x	o	o		x			x	x	x	x	x			x	o	x					–					x		
" DICHROMATE, $K_2Cr_2O_7$			x	x	–		x	x	x	x	x		–	–	+	o	x	o	x	x		x	x	x			x			x					x		
" FERROCYANIDE, $K_4Fe(CN)_6$	o		x	x			x	x	x	x	–	x	x	x	x	x	x	x	x	x			x	o						x					x		
" HYDROXIDE, KOH	+	–	+	+	–	–	x	x	+	o	o	o	x	x	x	+	+	+	x	x		x	–	x			–	+		–		o			–		
" NITRATE, KNO_3	x		x	x	x		x	x	x	x	x	–	+	+	+	o	x	o	x	x			x	o						x					x		
" PERMANGANATE, $KMnO_4$	+	+	+	+	+		x	x	x	x	x	o	–	+	+	o	x	o	x	o			x				x			x					x		
" SULFATE, K_2SO_4	x		+	+	+	x	x	x	x	+	x	x	+	+	+	+	+	+	x	x			x				x			x		x			x		
" SULFIDE, K_2S	–		x	x		–	x		x										x	x				o						–					x		
PYROGALLOL, $C_6H_3(OH)_3$			x	x			x		x	x				+		x	x	x	x	x										x					x		
SILVER NITRATE, $AgNO_3$			x	x			x	x	x	o	o	o			+	+	+	+	x	x		x	x							x					x		
SODIUM, Molten 210°- 400°F.	x	x	x	x	x		x	x	x	x	x		x	x	x	x	x		x	x		x	x			–		x		–					o		
SODIUM ACETATE; $NaCH_3COO$	o		–	x			x	x	x	x	–	x	+			x	x	x	x	x							x			x					x		
" BICARBONATE, $NaHCO_3$	–		x	x	x	x	x	x	x	–	x	x	x	x	x	x	x	x	x	x		x	x	x					x	x	x		x	x	x	x	x
" BISULFATE, $NaHSO_4$	o	o	–	x	x		x	x	x	–	o	x	+			x	x	x	x	x	x		–		x		x		x	x	x		x		x		
" BISULFITE, $NaHSO_3$	o		x	x			x	x	–	–	x	x							x	x									x	x	x		x		x		
" BORATE $Na_2B_4O_7$			x	x			x		x	x	–		+			x	x	x	x	x			x							x	x			x	x	x	
" CARBONATE, Na_2CO_3	+	+	+	+	x	x	x	x	x	+	o	–	+	+	–	+	x	x	x	x	x		–	x	x	x	x		x	–	–	o	x	x	x	x	
" CHLORATE, $NaClO_3$	–		x	x			–	–	x	+	+				+	o	x	o	x	o			x				x			x	x		x	x	x	x	x
" CHLORIDE, NaCl	+	+	–	–	–	–	x	x	+	+	–	+	+	+	–	+	+	–	x	x	–	x	x	x			x		x	x		x	x		x		
" CYANIDE, NaCN	x		x	x			x	x	x	o	o	x	x						x	x				o			x			–					x		
" FLUORIDE, NaF	o		–	–			+	–	o	–	–		+			x	x	x	x	x		x	o				x			–					x		
" HYDROXIDE, (Conc.), NaOH	–	–	–	–	x	x	x	x	–	–	o	o	x	x	x	x	+	x	x	x	x	x	o	x	x		x		x	–	o	o	o		o		

(continued)

TABLE 7.2: METAL, CARBON, CERAMIC, RUBBER, PLASTIC AND WOOD CONSTRUCTION MATERIALS—CORNING (continued)

MATERIALS
X - Very Good Service
+ - Moderate Service
— - Limited or Variable Service
o - Unsatisfactory
Blank - No Information

CHEMICALS SOLIDS ASSUMED IN SOL'N. ROOM TEMPERATURES ASSUMED UNLESS OTHERWISE STATED	METALS: CARBON STEEL, Fe	CAST IRON & DUCTILE IRON Fe	304 STAINLESS STEEL; Fe, 18Cr, 8Ni	316 STAINLESS STEEL; Fe, 16Cr, 10Ni, 2Mo	347 STAINLESS STEEL; Fe, 17Cr, 9Ni; (Cx10)Cb	NI-RESIST IRON; Fe, 14Ni, 2Cr, 2Si	DURIMET 20: CARPENTER 20; Fe; 4Cu, 20Cr, 29Ni, 2Mo, 1Si	WORTHITE 3Mo, 2Cu, Fe, 20Cr, 24Ni, 3Si	DURIRON; Fe, 14Si; Durichlor, Fe, 14Si, 3Mo*	COPPER; BRASS; BRONZES; EVERDUR	ALUMINUM; Al (and Alloys)	LEAD, Pb	MONEL; 67Ni, 30Cu, 1.4 Fe	NICKEL Ni	INCONEL; 76Ni, 15Cr, 8Fe	HASTELLOY B; Ni, 26Mo, 4Fe	HASTELLOY C; Ni, 16Mo, 4Fe, 14Cr, 4W	HASTELLOY D; Ni, 8Si, 3Cu	CHLORIMET 3; 3Fe, 1Si, 60Ni, 18Mo, 18Cr	CHLORIMET 2; 63Ni, 32Mo, 3Fe, 1Si	STELLITE; Co, 28Cr, 4W	ZIRCONIUM; Zr	TANTALUM; Ta	SILVER; Ag	PLATINUM; Pt	DOWMETAL; (Mg alloys)	TITANIUM; Ti	MOLYBDENUM Mo	CARBONS & CERAMICS: CARBON & GRAPHITE;	GLASS, "PYREX" brand	SILICAWARE	SILICATE CEMENTS	CHEMICAL STONEWARE	TRANSITE (asbestos & cement)	CHEMICAL PORCELAIN	CONCRETE-Unbonded	CONCRETE-Mortar Bonded
SODIUM HYDROXIDE, (Dilute)	x	+	+	+	x		x	x	+	x	o	o	—	—	—	x	+	x	x	x	x	x	—		x	—	x	+	x	—	o	o	—		—		
" HYDROSULFITE							x		x	—	x		o	o	o	—	x	—	x	x										x	x		x		x		
" HYPOCHLORITE, NaOCl	o	o	—	—	—	—	—	—	x	o	o	o	o	o	o	o	—	o	+	o	—		—	x	x		x		o	x			x		x		
" HYPOSULFATE	—		x	x			x		x	o	o		x						x	x				o						x					x		
" NITRATE, Na NO$_3$	x	+	x	x	x	—	x	x	x	+	x	o	+	+	x	o	+	o	x	o	x		—	—	x				x	x	x	x	x		x		
" PEROXIDE, Na$_2$ O$_2$	—		x	x	+		x		x	—	—		x	+	+	+	x	+	x	x			o	o						—					x		
" PHOSPHATE, (Tri) Na$_3$ PO$_4$	x		x	x	+		x		x	—	o		+	+		x	x	x	x	x			x	x			x			—	—		x	x	x		
" SILICATE, Na$_2$SiO$_3$	x		x	x	+	x	x		x	—	—		+	x	+	x	x	x	x	x			x							—					x	x	
" SULFATE, Na$_2$SO$_4$	x	x	—	—	x	x	x	x	x	x	x	—	+	x	x	x	x	x	x	x	—		—	x			x		x	x			x		x		
" SULFIDE, Na$_2$S	+	x	—	x	x	x	x	x	x	o	o	—	+	+	+	x	x	x	x	x	x		—	o			x		x	—	—		x	x	x		
" SULFITE, Na$_2$ SO$_3$	+	x	—	—	—	x	x	x	o	—	—	x	—	—	—	o	x	o	x	x	x		—				x		x	x	x		x		x		
STANNIC CHLORIDE, Sn Cl$_4$	o		o	o	o		x	—	x	o	o	x	o	o	o	o	x	o	—	o			x				x			x					x		
STANNOUS CHLORIDE, Sn Cl$_2$	o		o	—			x	—	x	o	o		o	o	o	x	x	x	x	x		x	x				x			x					x		
STEARIC ACID, CH$_3$ (CH$_2$)$_{16}$ COOH	—	—	x	x	x	—	x	x	x	—	—	—	x	x	x	x	x	x	x	x	x		x	x			x		x	x			x		x		
SULFUR, Molten, S	—	x	—	—	—	—	x	x	x	o	x	o	—	—	x	o	o	o	x	—	o		x	o			x	+	—	x			—		—		
SULFUR CHLORIDE, (Wet), S$_2$ Cl$_2$	—		o	—		x	—	—	x	o	o		—	—					x					o						x					x		
" DIOXIDE (Dry), SO$_2$	x	x	x	x	—	x	x	x	x	x	x	x	o	o	o	o	x	o	x	—	x		x	o		x			x	x	x		x		x		
" DIOXIDE (Wet)	o		—	x			x		—	o		x	o	o	o	o	x	o	x				x				+		x	x	x				x		
" TRIOXIDE, SO$_3$	x		x	x		x	x	x	—	—	x		o	o	o				x				o	o						x			x		x		
SULFURIC ACID (Fuming to 98%)	—	—	o	o		—	x	x	o	o	—	o	o	o	o	x	o	x	x	x		o	o	o			o		o	x	x	x					
" " (Hot Conc.) H$_2$ SO$_4$	o		o	o			+		x	o	o	—	o	o	o	o	o	x	+	+	o	o	—				o			x							
" " (Cold Conc.)	+	+	x	x	—		x	x	x	o	—	x	+			x	x	x	x	x	—	o	—		x		o	—	o	x					x		
" " (75%-95%)	+	—	o	o	—	—	x	x	x	o	o	x	o	o	—	x	x	—	x	x	—	—	—	o	x		o		x	x			x		x		
" " (10%-75%)	o	o	o	o	—	—	x	x	x	o	o	x	—	o	—	x	x	x	x	x	—	x	—	x	x		—	x	x	x	x		x		x		
" " (<10%)	o	o	o	—	—	—	—	x	x	o	—	x	—	—	—	x	x	x	x	x	—	x	x	x	x		x		x	x	x		x		x		
SULFUROUS ACID, H$_2$ SO$_3$	o	o	—	x	—	o	x	x	o	o	—	—	o	o	o	o	+	+	x	x	x	x	x	x			x		x	x	x	x	x		x		
SULFURYL CHLORIDE, SO$_2$ Cl$_2$							+		x										+	+			x							x	x		x		x		
TANNIC ACID	—		x	x			x	x	x	—	x		+	+	+	x	x	x	x	x		x	x	x			x		x	x			x		x	x	
TARTARIC ACID, (CHOH COOH)$_2$	—		x	x			x	x	x	—	o	x	+	+		x	x	x	x	x		x	x	x			x	+	x	x	x		x		x		
TOLUENE, CH$_3$ C$_6$ H$_5$	x		x				x		x	x	x	x	x						x	x		x							x	x	x		x		x		
TRICHLORETHYLENE, Dry, Cl$_2$. C. CHCl	—	—	—	x	—	—	x	x	x	—	—		x	x	x	x	x	x	x	x	x		x			x	x		x	x			x		x		
WATER, Fresh H$_2$O	x		x	x			x		x	x	x		x	x					x	x			x	x				x	x	x	x		x	x	x	x	x
WATER, Distilled Lab.	o		x	x		o	x		x	x	o		o	-					x	x				x						+					x		
ZINC CHLORIDE, Zn Cl$_2$	o	o	o	—	o	—	x	x	x	o	o	—	+	+		+	+	+	x	x		x	x	x			x		x	x		x			x	x	
" SULFATE, Zn SO$_4$	o	o	+	+	+	x	x	x	x	+	—	+	+	+	+	+	+	+	x	x			x	x			x		x	x					x		

*NOTE: Duriron is as shown. Durichlor is also satisfactory on Chlorides and HCl

(continued)

TABLE 7.2: METAL, CARBON, CERAMIC, RUBBER, PLASTIC AND WOOD CONSTRUCTION MATERIALS—CORNING (continued)

MATERIALS
X - Very Good Service
\+ - Moderate Service
— - Limited or Variable Service
o - Unsatisfactory
Blank - No Information

CHEMICALS
SOLIDS ASSUMED IN SOL'N.
ROOM TEMPERATURES ASSUMED UNLESS OTHERWISE STATED

CHEMICALS	RUBBERS						THERMOPLASTICS														
	HARD RUBBER (Natural)	SOFT RUBBER-(Natural)	NEOPRENE	BUTADIENE DERIVATIVES	NITRILE Rubber (Chemigum)	VITON	ASPHALTIC, BITUMASTIC	CELLULOSE ACETATE	CELLULOSE ACETATEBUTYRATE	ETHYL CELLULOSE (Ethocel)	CELLULOSE NITRATE	ACRYLIC (Lucite, Plexiglas)	COUMARONE RESINS	POLYETHYLENE	POLYVINYL CHLORIDE, Rigid or Unplast.	TYGON (P. V. C. & Copolymers)	SARAN (Vinyl chloride, vinylidene chloride)	KEL-F (Polytrifluorochloroethylene)	TEFLON (Polytetrafluoroethylene)	USCOLITE CP -(styrene-acrylonitrile-butadiene)	PENTON (Chlorinated Polyether)
ACETIC ACID, 100%, CH_3COOH	x	—	o	o	o	o	o	o		x	o	o		o	o	o	—	x	x	o	†
ACETIC ACID, Dilute	x	—	o	x	o		x	x	x	x	x	x	x	x	—	—	x	x	x	—	x
ACETIC ANHYDRIDE, $(CH_3CO)_2O$	x	—	o	—	o	o	o	o		o	o	o			o	o	—		x		†
ACETONE, CH_3COCH_3	o	o	o	x	—	o	o	o	o	o	o	o	o	o	o		o		x	o	†
ACETYL CHLORIDE, CH_3COCl																		x	x		
ALUMINUM CHLORIDE, $AlCl_3$	x	x	x	x	x	x	x				x			x	x	x	x	x	x	x	x
" HYDROXIDE, $Al(OH)_3$						x								x	x			x	x		x
" SULFATE, $Al_2(SO_4)_3$	x	x	x	x	—	x	x				x	x	x	x	x	x	x	x	x	x	x
ALUMS, CONC., $Al_2(SO_4)_3 \cdot K_2SO_4$, etc.			x											x	x	x	x	x	x	x	x
ALUMS, DILUTE	x	x	x	x	x		x				x	x	x	x	x	x	x	x	x	x	x
AMINES, various	—					o									o	—		x	x		
AMMONIA (Gas), Moist, NH_3	—	—	x	x		o		—	x	x		x		x	—		o	x	x	—	x
AMMONIUM CARBONATE, $(NH_4)_2CO_3$	x				o		x							x	x		x	x	x	x	x
" CHLORIDE, NH_4Cl	x	x	x	x	—	x	x	x	x		x	x	x	x	x	x	x	x	x	x	x
" HYDROXIDE, NH_4OH	—	x	—		x	†	—					x		x	x	—	o	x	x	x	x
" NITRATE, NH_4NO_3	—	—	—	x		†	x	x			x	x		x	x		x	x	x	x	x
PERSULFATE, $(NH_4)_2S_2O_8$							x								x	x		x	x		x
PHOSPHATE, $(NH_4)H_2PO_4$															x			x	x	x	x
" $(NH_4)_2HPO_4$															x			x	x	x	x
" $(NH_4)_3PO_4$	x													x	x	x		x	x	x	x
" SULFATE, $(NH_4)_2SO_4$	x	x	x	x			x				x	x	x		x	x	x	x	x	x	x
AMYL ACETATE, $C_5H_{11}COOCH_3$	o	o	o	o		o	o	o	o	o	o	o	o	—	o		o	x	x		x
" ALCOHOL, $C_5H_{11}OH$	—	—	x	x		x	o	x	o	o	o	x	—	—	x		x	x	x	x	x
" CHLORIDE, $C_5H_{11}Cl$	—	o	—	x		—	o								o		x	x	x		x
ANTIMONY TRICHLORIDE, $SbCl_3$				x		x									x		x	x	x	x	x
ARSENIC ACID, $HAsO_3$			x			x								x	—			x	x		x
BARIUM CARBONATE, $BaCO_3$						x									x			x	x	x	x
" HYDROXIDE, $Ba(OH)_2$						x	x							x	x			x	x	x	x
" SULFIDE, BaS	x					x								x	—	x	x	x	x	x	x
BENZALDEHYDE, C_6H_5CHO	o	o	o	x			o							o	o		—	x	x		—
BENZENE, C_6H_6	o	o	o		o	—	o	—	o	o		o		—	o	o	—	x	x		†
BENZOIC ACID, C_6H_5COOH							x								x	x	x	x	x		x
BORAX, $Na_2B_4O_7$	x	x	x	x		x	x	x	x	x	x	x	x		x			x	x	x	x
BORIC ACID, H_3BO_3	x	x	x			x									—	x	x	x	x	x	x
BROMINE, Wet, Br_2	—	o		—		—	o							o	o	—	o	x	x		—
BUTANOL, C_4H_9OH	—	—	—									x			x		x	x	x	x	x
BUTYL ACETATE, $C_4H_9COOCH_3$	o	o	o	o		o	o	o	o	o	o	o			o		o	x	x		†
BUTYRIC ACID, C_3H_7COOH	x	—	o			o	o								o		—	x	x		x
CALCIUM BISULFATE, $CaHSO_4$																		x	x		
" BISULFITE, $CaHSO_3$	x	x	x	x											x		x	x	x	x	x
CALCIUM CARBONATE, $CaCO_3$	x	x	—			x									x		x	x	x		x
" CHLORATE, $CaClO_3$							x								x			x	x	x	x
" CHLORIDE, $CaCl_2$	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
" HYDROXIDE, $Ca(OH)_2$	x	x	x			x	x								x		x	x	x	x	x
" HYPOCHLORITE, $Ca(OCl)_2$	x	x	o	x	—		—							x	x	x	x	x	x	x	x
" SULFATE, $CaSO_4$	x	x	x			x	x								x		x	x	x	x	x
CARBON DIOXIDE (Dry), CO_2	x	x	x				x								x		x		x	x	x
" " (Wet or H_2CO_3)	x	x	x	x			x	x	x	x	x	x	x	x	x	x	x		x	x	x

(continued)

TABLE 7.2: METAL, CARBON, CERAMIC, RUBBER, PLASTIC AND WOOD CONSTRUCTION MATERIALS—CORNING (continued)

MATERIALS
X - Very Good Service
+ - Moderate Service
– - Limited or Variable Service
o - Unsatisfactory
Blank - No Information

CHEMICALS
SOLIDS ASSUMED IN SOL'N.
ROOM TEMPERATURES ASSUMED UNLESS OTHERWISE STATED

CHEMICALS	RUBBERS: HARD RUBBER (Natural)	SOFT RUBBER (Natural)	NEOPRENE	BUTADIENE DERIVATIVES	NITRILE Rubber (Chemigum)	VITON	THERMOPLASTICS: ASPHALTIC, BITUMASTIC	CELLULOSE ACETATE	CELLULOSE ACETATEBUTYRATE	ETHYL CELLULOSE (Ethocel)	CELLULOSE NITRATE	ACRYLIC (Lucite, Plexiglas)	COUMARONE RESINS	POLYETHYLENE	POLYVINYL CHLORIDE, Rigid or Unplast.	TYGON (P. V. C. & Copolymers)	SARAN (Vinyl chloride, vinylidene chloride)	KEL-F (Polytrifluorochloroethylene)	TEFLON (Polytetrafluoroethylene)	USCOLITE CP-4 (styrene-acrylonitrile-butadiene)	PENTON (Chlorinated Polyether)
CARBON DISULFIDE, CS_2	o	o	o	x		x	o	o	o	o	x	x		o	o			x	x		–
CARBON TETRACHLORIDE (Moist) CCl_4	o	o	o	x	–	x	o	x	–		x	x		o	–	o	–	x	x		x
CHLORACETIC ACID, $ClCH_2CO_2H$	–	–	–	x		x	o			–					x	o	–	x	x		+
CHLORIC ACID, $HClO_3$																		x	x		
CHLORINE (DRY), Cl_2	x	–	o	–		x	o	–	–					x	–	x	–	x	x	x	+
" (Wet), Cl_2	x	x	o	x			–	–	–					x	–	x	–	x	x	x	+
CHLOROBENZENE, C_6H_5Cl	o	o	o			–	o					–		o	o		–	x	x		+
CHLOROFORM, $CHCl_3$	o	o	o			–	o	o	o	o		o		o	o		–	x	x		+
CHROMIC ACID, CrO_3 sol'n	o	o	o	o	o	–	o	o	o	o		o	o	x	–	x	x	x	x	–	–
COPPER CHLORIDE, $CuCl_2$	–	x	x	x		x	x							x	x		x	x	x	x	x
" CYANIDE, $Cu(CN)_2$							x								x				x	x	x
" NITRATE $Cu(NO_3)_2$	x		x			x								x	x		x	x	x	x	x
" SULFATE $CuSO_4$	x	x	x	x	o	x	x	x	x		x	o		x	x	x	x	x	x	x	x
CRESYLIC ACID	o	o	o			–									–			†	x		x
DICHLORETHANE, $C_2H_4Cl_2$																		–	x		
DIETHYLAMINE, $(C_2H_5)_2NH$			o												o			x	x		x
DIPHENYL, $C_6H_5C_6H_5$																		x	x		
ETHERS, Various	o	o	o	o		o	o	o	o	o	o	o		o	o		–	x	x		x
ETHYL ACETATE, $C_2H_5COOCH_3$	o	o	o	o		o	o	o	o	o	o	o		o	o		–	x	x		†
" ALCOHOL, C_2H_5OH	x	x	x	x	x	x	x	x	–	–		–		o	x	–	x	x	x	x	x
ETHYL CHLORIDE, C_2H_5Cl	o		–			x	o								o		–	x	x		x
ETHYLENE CHLOROHYDRIN, $Cl(C_2H_4)OH$	–	–	–	–			o	o	o						o		o	x	x		x
" DICHLORIDE, $C_2H_4Cl_2$	o	o	o	o		–	o	o				o		–	o		–	x	x		†
" GLYCOL, CH_2OHCH_2OH	–	–	–	x	x	x	x	x	x		x	x		o	x	–		x	x	x	x
" OXIDE, CH_2OCH_2						–									o		o		x		x
FATTY ACIDS, Various	o	o	o	x		x	o	x	x		x			o	–	x	x	x	x	x	x
FERRIC CHLORIDE, $FeCl_3$	x	x	–	x		x	x			–	x			x	x	x	–	x	x	x	x
" NITRATE, $Fe(NO_3)_3$	o		x			x	x								x		x	x	x	x	x
" SULFATE, $Fe_2(SO_4)_3$	x	x	x	x		x	x			–	x				x	x	x	x	x	x	x
FERROUS CHLORIDE, $FeCl_2$	x	x	x	x		x	x				x				x		–	x	x	x	x
" SULFATE, $FeSO_4$	x	x	x	x	x	x	x				x			x	x	x	–	x	x	x	x
FLUORINE, F_2							o							–	–				–	o	o
FORMALDEHYDE, CH_2O	–	–	–	x		o	x	o	x		x	x	x	x	–	–	x	x	x	–	x
FORMIC ACID, HCOOH	–	o	–	x	x	†	o			–		o		x	–	x	–	x	x	–	x
FUEL OIL									x					o	x			x	x		
GALLIC ACID, $(OH)_3C_6H_2COOH$						†									x	x		x	x		x
GASOLINE, Refined	–	o	–	x		x	o	x	x		x	x					x	x	x	–	x
GLYCEROL, $CH_2OH.CHOH.CH_2OH$	x	x	–	–	x	x	x	x	x		x	x		x	x	x	x	x	x	–	x
HYDROBROMIC ACID, HBr	–	x	–	x		†	o	x						x	x	–	x	x	x	–	x
HYDROCHLORIC ACID, (Conc.), HCl	x	x	–	x	o	–	x	o	o	o	o	x	x	x	x	x	x	x	x	–	x
" (Dilute)	x	x	–	x	–		x	x	x	–	x	x	x	x	x	x	x	x	x	–	x
" (Dry Gas)							o								x			x	x	x	x
HYDROCYANIC ACID, (Conc.), HCN							x								x			x	x	–	
" " (Dil. & Gas)	–		–												x		x		x	–	
HYDROFLUORIC ACID, (Conc.), HF	o	o	o		o							x		x	–	o	o	x	x		†
" " (Dilute)	x	x	–		x	†	o					x		x	–	–	–	x	x	x	x
HYDROFLUOSILICIC ACID, H_2SiF_6			x													–			x		x
HYDROCARBONS (Aliphatic)	o	o	x	x					–	–	x	x				–		x	x		

(continued)

TABLE 7.2: METAL, CARBON, CERAMIC, RUBBER, PLASTIC AND WOOD CONSTRUCTION MATERIALS—CORNING (continued)

MATERIALS
X - Very Good Service
+ - Moderate Service
— - Limited or Variable Service
o - Unsatisfactory
Blank - No Information

CHEMICALS SOLIDS ASSUMED IN SOL'N. ROOM TEMPERATURES ASSUMED UNLESS OTHERWISE STATED	RUBBERS						THERMOPLASTICS														
	HARD RUBBER (Natural)	SOFT RUBBER-(Natural)	NEOPRENE	BUTADIENE DERIVATIVES	NITRILE Rubber (Chemigum)	VITON	ASPHALTIC BITUMASTIC	CELLULOSE ACETATE	CELLULOSE ACETATE BUTYRATE	ETHYL CELLULOSE (Ethocel)	CELLULOSE NITRATE	ACRYLIC (Lucite, Plexiglas)	COUMARONE RESINS	POLYETHYLENE	POLYVINYL CHLORIDE, Rigid or Unplast.	TYGON (P. V. C. & Copolymers)	SARAN (Vinyl chloride, vinyldene chloride)	KEL-F (Polytrifluorochloroethylene)	TEFLON (Polytetrafluoroethylene)	USCOLITE CP -(styrene-acrylonitrile-butadiene)	PENTON (Chlorinated Polyether)
HYDROCARBONS (Aromatic)	o	o		o				x	-	-		-				o		+	x		
HYDROGEN GAS, H_2						x	x											x	x		x
HYDROGEN PEROXIDE (Conc.), H_2O_2	-	-	o	x			-	-				x			x	-		x	x	-	+
" " (Dilute)	-	-	o	x	x		-	-				x		x	x	x	x	y	x	x	
HYDROGEN SULFIDE (Dry) H_2S	x	x		x		x	x								x			x	x	x	x
" " (Wet)						x									x			x	x		x
IODINE, I_2 Wet	-	-	o	-		x	o	-						-	o		-	x	x		
IODOFORM, CHI_3						-													x		
KEROSENE	o	o	o			x						x			x		x	x	x	x	x
KETONES, Various	o		o			o	o		o			-		o	o	o	o	+	x	o	+
LACTIC ACID, $CH_3CHOHCOOH$	x	-	x			+		-	x	-				x	x	x	x	x	x	-	x
LEAD ACETATE, $Pb(CH_3COO)_2$							x								x			x	x	x	x
MAGNESIUM CHLORIDE, $MgCl_2$	x	x	x	x		x	x	x	x		x		x	x	x	x	x	x	x	x	x
" HYDROXIDE, $Mg(OH)_2$	x		x			x									x		x	x	x	x	x
" SULFATE, $MgSO_4$	x	x	x	x		x	x	x	x		x		x	x	x		x	x	x	x	x
MALEIC ACID, $CO_2H C_2H_2 CO_2H$			x			+	o								-		-	x	x	x	x
MALIC ACID, $CO_2H CH_2 CHOH CO_2H$	x	x	x	x		-									x			x	x		x
MERCURIC CHLORIDE, $HgCl_2$	x		-			x	x	x							-	x	x	x	x	x	x
MERCURY, Hg						x	x								-		x		x		x
METHANOL, Conc., CH_3OH	-	x	-		x	-	x					o		-	x		x	x	x	x	x
" (Dilute)	x	x													x			x	x	x	x
METHYL CHLORIDE, CH_3Cl	o		o			-	o								o		-	x	x		x
NAPHTHA, Petroleum	-	o	x	x		+	o				x	x			x			x	x		x
NICKEL CHLORIDE, $NiCl_2$	x		x			x	x							x	x	x	x	x	x	x	x
" SULFATE, $NiSO_4$	x	x	x			x	x							x	x	x	x	x	x	x	x
NITRATING ACID (>15% H_2SO_4)	-	-					o									o		x	x		
" " (<15% H_2SO_4)	-	-					o									-		x	x		
" " (<15% HNO_3)	-	-					o									-		x	x		
" " (<1% Acid)	-	-					o									-		x	x		
NITRIC ACID, Conc., HNO_3	o	o	o	o	o	o				o				o	o	o	-	x	x	o	o
" " Dilute	-	o	o	x	o	-	-			-		x		-	x	-	x	x	x	x	+
NITROBENZENE, $C_6H_5NO_2$	o	o	o			o	o							-	o		-	x	x		+
NITROUS ACID, HNO_2	-	o	o	x			x											x	x		x
OLEIC ACID, $C_8H_{17}CH:CH(CH_2)_7CO_2H$	o	o	o	x		+	o	x	x		x			o	x	x	x	x	x	x	x
OXALIC ACID, $CO_2H CO_2H$	x	x	-	x		-	x							x	x	y	x	x	x	x	x
PHENOL (Conc.) C_6H_5OH	-	o	-	x		x	o	o	o	-		x			-	·	-	x	x	o	+
" (Dilute)	-		-				-								x	-	-	x	x	o	
PHOSPHORIC ACID (100%), H_3PO_4	x	x	x	x			x	x		o				x	x	x		x	x	x	
" " (>45% Hot)	-	-	-		x	+								-	x	x		x	x	x	
PHOSPHORIC ACID (>45% Cold)	—	—	—				x							x	x	x	x		x	x	x
" ACID (<45%) "	x	x	—											x	x	x	x		x	x	x
" ANHYDRIDE, Dry or Moist														x					x		
" " Molten, P_2O_5																			x		
PHTHALIC ANHYDRIDE, $C_6H_4(CO)_2O$	x	x					x										x		x		
PICRIC ACID, Sol'n., $HO.C_6H_2(NO_2)_3$			-				o								o	x	o		x		x
POTASSIUM BROMIDE, KBr	x		x												x		x		x	x	x
" CARBONATE, K_2CO_3	x		x			x	x							x	—		x		x	x	x

(continued)

TABLE 7.2: METAL, CARBON, CERAMIC, RUBBER, PLASTIC AND WOOD CONSTRUCTION MATERIALS–CORNING (continued)

MATERIALS
X - Very Good Service
\+ - Moderate Service
– - Limited or Variable Service
o - Unsatisfactory
Blank - No Information

CHEMICALS SOLIDS ASSUMED IN SOL'N. ROOM TEMPERATURES ASSUMED UNLESS OTHERWISE STATED	RUBBERS						THERMOPLASTICS														
	HARD RUBBER (Natural)	SOFT RUBBER-(Natural)	NEOPRENE	BUTADIENE DERIVATIVES	NITRILE Rubber (Chemigum)	VITON	ASPHALTIC, BITUMASTIC	CELLULOSE ACETATE	CELLULOSE ACETATEBUTYRATE	ETHYL CELLULOSE (Ethocel)	CELLULOSE NITRATE	ACRYLIC (Lucite, Plexiglas)	COUMARONE RESINS	POLYETHYLENE	POLYVINYL CHLORIDE, Rigid or Unplast.	TYGON (P. V. C. & Copolymers)	SARAN (Vinyl chloride, vinylidene chloride)	KEL-F (Polytrifluorochloroethylene	TEFLON (Polytetrafluoroethylene)	USCOLITE CP -(styrene-acrylonitrile-butadiene)	PENTON (Chlorinated Polyether)
POTASSIUM CHLORATE, $KClO_3$																					
" CHLORIDE, KCl	x		x			x	x						x		x		x		x	x	x
" CYANIDE, KCN	x		x			x							x		x		x		x	x	x
" DICHROMATE, $K_2Cr_2O_7$	x		x			x									x	x	x		x	x	x
" FERROCYANIDE, $K_4Fe(CN)_6$		x	x				x						x		x	x	x		x	x	x
" HYDROXIDE, KOH	x	x	x		o	x	x								x		x		x		x
" NITRATE, KNO_3	x		x				x						x		x		–		x	x	x
" PERMANGANATE, $KMnO_4$	–	o	o			x	o						x		x		x		x	x	x
" SULFATE, K_2SO_4	x		x		x	x	x								x		–		x	x	x
" SULFIDE, K_2S															x		x		x	x	x
PYROGALLOL, $C_6H_3(OH)_3$												x				x			x		
SILVER NITRATE, $AgNO_3$	x	x				x						x		x	x		x		x	x	x
SODIUM, Molten 210°- 400°F.														o	o	o	o		–		o
SODIUM ACETATE; $NaCH_3COO$			x			o	x								x		x		x		x
" BICARBONATE, $NaHCO_3$	x	x	x	x			x	x	x		x	x			x		x		x	x	x
" BISULFATE, $NaHSO_4$	x	x	x	x											x	x	x		x		x
" BISULFITE, $NaHSO_3$	x	x	–	x			x						x		x	x	x		x	x	x
" BORATE Na_2BO_3	x	x	x	x			x	x	x		x	x			x	x			x	x	
" CARBONATE, Na_2CO_3	x	x	x	x	x	x	x	–	x		–	o	x		x	x	x	x	x	x	x
" CHLORATE, $NaClO_3$	x	x	x	x		x	x	x	x		x	x	x		x		x		x	x	x
" CHLORIDE, NaCl	x	x	x		x	x	x	x	x			x	x		x	x	x	x	x	x	x
" CYANIDE, NaCN	x	x	x			x	x								x	x	–		x	x	x
" FLUORIDE, NaF	x	x				x									x		x		x	x	x
" HYDROXIDE, (Conc.), NaOH	x	x	x	x	x	–	x	o	–	x	o	x	x		x	–	o	x	x	x	x
" HYDROXIDE, (Dilute)	x	x	x	x	x		x	–	x	x	–	x	x		x	x	–	x	x	x	x
" HYDROSULFITE	x	–		x															x		
" HYPOCHLORITE, NaOCl	x	–	o	x		–	–	–			x				x	–	x		x	x	x
" HYPOSULFATE																			x		
" NITRATE, $NaNO_3$	x	–	x	x	x	x	x	x	x		x				x	x	x		x	x	x
" PEROXIDE, Na_2O_2															x				x	x	
" PHOSPHATE, (Tri) Na_3PO_4	x	x	–	x			x			x		x			x	x			x	x	
" SILICATE, Na_2SiO_3	x	x	x	x		x	x								x				x		
" SULFATE, Na_2SO_4	x	x	x			x	x							x	x	x	x		x	x	x
" SULFIDE, Na_2S	x	–	x	x		x	x							x	x	x	x		x	x	
" SULFITE, Na_2SO_3	x	x	o	x		x	x								x	x	x		x	x	x
STANNIC CHLORIDE, $SnCl_4$						x	o								x	x		x	x	x	x
STANNOUS CHLORIDE, $SnCl_2$	x	x	–				x							x	–		x		x	x	x
STEARIC ACID, $CH_3(CH_2)_{16}COOH$	–		o			x	o							x	x	x	x		x	x	x
SULFUR, Molten, S															o	o			x		o
SULFUR CHLORIDE, (Wet), S_2Cl_2																			x		
" DIOXIDE (Dry), SO_2	–	–	o	–			x			–					x	–	–		x		x
" DIOXIDE (Wet)	–		o			x									–		–		x		x
" TRIOXIDE, SO_3	x	x	o	x		x	o			o					x				x		
SULFURIC ACID (Fuming to 98%)			o		o		x	o	o	o	o	o			o		–		x	o	o
" " (Hot Conc.) H_2SO_4	o	o	o			o													x	o	–
" " (Cold Conc.)	o	o	o			+						–			x	o	–		x	o	–
" " (75%-95%)			o		o		x							x	x	o	–		x	o	+
" " (10%-75%)	x	x	–	x	–	x	x	x	x	o	o	x		x	x	–	x	x	x	–	x
" " (<10%)	x	x	x	x	x	x	x	x	x	–	–	x		x	x	x	x		x	x	x
SULFUROUS ACID, H_2SO_3	–	–	x				x							o	x	–	–		x	x	x
SULFURYL CHLORIDE, SO_2Cl_2														o					x		
TANNIC ACID	x	–	x				x			–				x	x		x		x	x	x
TARTARIC ACID, $(CHOH\ COOH)_2$	x	x	x			x	x	x	x						x		x		x	x	x
TOLUENE, $CH_3C_6H_5$	o	o	o	o		–		–	–	o		o		–	o	o	–	–	x		+
TRICHLORETHYLENE, Dry, $Cl_2C{:}CHCl$	o	o	o			–	o					o		o	o	o	–	o	x		+
WATER, Fresh H_2O	x	x	x	x		x	x	x	x	x	x	x	x		x		x		x	x	x
WATER, Distilled Lab.	x		x									x			x				x	x	x
ZINC CHLORIDE, $ZnCl_2$	x	x	x	x	x	x	x			x				x	x		x		x	x	x
" SULFATE, $ZnSO_4$	x	x	x			x	x							x	x	x	x		x	x	x

(continued)

TABLE 7.2: METAL, CARBON, CERAMIC, RUBBER, PLASTIC AND WOOD CONSTRUCTION MATERIALS—CORNING (continued)

MATERIALS
X - Very Good Service
\+ - Moderate Service
– - Limited or Variable Service
o - Unsatisfactory
Blank - No Information

CHEMICALS
SOLIDS ASSUMED IN SOL'N.
ROOM TEMPERATURES ASSUMED
UNLESS OTHERWISE STATED

CHEMICALS	THERMOSETTING PLASTICS: SHELLAC COMPOUNDS	ORGANIC POLYSULFIDES	POLYSTYRENE (Styron)	VINYLIDENE CHLORIDES	VINYL CHLORIDE ACETATES	CAST PHENOL FORMALDEHYDE	HAVEG 41 (Mod Phenolic w. asbestos)	HERESITE (phenol formaldehyde)	MOLDED PHENOL FORMALDEHYDE (Durez)	PHENOL FURFURAL PLASTICS	UREA FORMALDEHYDE	CASEIN PLASTICS	EPOXY RESINS	FURANE RESINS Haveg 61, Duralon	SILICONE RESINS	PERMANITE (Furan, Glass Fiber)	NYLON (Adipic Acid—Hexameth. Diamine)	DURCON 6 (Modif. Epoxy)	WOODS: CYPRESS	FIR	MAPLE	OAK	PINE	REDWOOD
ACETIC ACID, 100%, CH_3COOH	x	x	o	o	o	–	x	x	x	–			–	x	o		–	x	–	–	x	x	x	–
ACETIC ACID, Dilute																			x	x	x	x	x	x
ACETIC ANHYDRIDE, $(CH_3CO)_2O$			o					x	x					o				x						
ACETONE, CH_3COCH_3	o	x	–	o	o	–	o		–	–	x	x	x			x	x							
ACETYL CHLORIDE, CH_3COCl																		x						
ALUMINUM CHLORIDE, $AlCl_3$	x		x	x	x	x	x	x	x	x			x	x		x	x	x						
" HYDROXIDE, $Al(OH)_3$																	x	x						
" SULFATE, $Al_2(SO_4)_3$	x	x	x	x	x	–	x	x	x			x		x		x	x	x	x	x	x	–	x	x
ALUMS, CONC., $Al_2(SO_4)_3 \cdot K_2SO_4$, etc.							x	x					x					x						
ALUMS, DILUTE	x	x	x	x	x	–	x	x	x			x	x	x				x	x	x	x	–	x	x
AMINES, various							x	x										x						
AMMONIA (Gas), Moist, NH_3	x		o	x	x	x			x	–			x	x	–			x						
AMMONIUM CARBONATE, $(NH_4)_2CO_3$			x						x	x			x	x			x	x						
" CHLORIDE, NH_4Cl	x		x	x	x	x	x	x	x	x		x	x	x		x	o	+*						
" HYDROXIDE, NH_4OH			x	o				x	o	o			x	x	–	x	x	x						
" NITRATE, NH_4NO_3	–		x	x	x	x			x	x		x	x				x	x						
PERSULFATE, $(NH_4)_2S_2O_8$													x	x				x						
PHOSPHATE, $(NH_4)_3H_2PO_4$																		x						
" $(NH_4)_2HPO_4$																		x						
" $(NH_4)_3PO_4$								x	x									x						
" SULFATE, $(NH_4)_2SO_4$	x	x		x	x	x	x	x	x	x		x	x			x	o							
AMYL ACETATE, $C_5H_{11}COOCH_3$	o		o	o	x	–			–	–		x	x			x	x	x						
". ALCOHOL, $C_5H_{11}OH$	o		x	–	–	x			x	x		x	x			x	x	x						
" CHLORIDE, $C_5H_{11}Cl$				x	x	–			–	–		x	x					x						
ANTIMONY TRICHLORIDE, $SbCl_3$													x				o	x						
ARSENIC ACID, $HAsO_3$																	x	x						
BARIUM CARBONATE, $BaCO_3$													x				x	x						
" HYDROXIDE, $Ba(OH)_2$													x				x	x						
" SULFIDE, BaS																	x	x						
BENZALDEHYDE, C_6H_5CHO	o			x		x			x	x			–					x	x					
BENZENE, C_6H_6			o		o			–x	x	x			x	x		x	x	x*						
BENZOIC ACID, C_6H_5COOH													x				o	+*						
BORAX, $Na_2B_4O_7$	x		x	x	x	x			x	x							x	x	x	–	–	–	x	–
BORIC ACID, H_3BO_3							x	x	x	x				x		x	x	x						
BROMINE, Wet, Br_2			–				o	x	–	–	–		o	o		o	o	x*						
BUTANOL, C_4H_9OH													–			x		x						
BUTYL ACETATE, $C_4H_9COOCH_3$			o	o	o	–			–	–	o	x	x					x						
BUTYRIC ACID, C_3H_7COOH													–				o	x						
CALCIUM BISULFATE, $CaHSO_4$																		x						
" BISULFITE, $Ca(HSO_3)_2$						x			x	x								x						
CALCIUM CARBONATE, $CaCO_3$																	x	x						
" CHLORATE, $Ca(ClO_3)_2$													x					x						
" CHLORIDE, $CaCl_2$	x	x	x	x	x	–	x	x	–	–			x	x		x	o	x	x	x	x	x	x	–
" HYDROXIDE, $Ca(OH)_2$													x			x	x	x						
" HYPOCHLORITE, $Ca(OCl)_2$			x	x	x	o	–	–	o	o			x	x			o	x	o	o	o	o	–	o
" SULFATE, $CaSO_4$													x				x	x						
CARBON DIOXIDE (Dry), CO_2													x					o						
" " (Wet or H_2CO_3)	x	x	x	x	x	x	x	x	x	x	x	x						x	x	x	x	x	x	x

(continued)

TABLE 7.2: METAL, CARBON, CERAMIC, RUBBER, PLASTIC AND WOOD CONSTRUCTION MATERIALS—CORNING (continued)

MATERIALS
X - Very Good Service
+ - Moderate Service
– - Limited or Variable Service
o - Unsatisfactory
Blank - No Information

CHEMICALS
SOLIDS ASSUMED IN SOL'N.
ROOM TEMPERATURES ASSUMED
UNLESS OTHERWISE STATED

CHEMICALS	THERMOSETTING PLASTICS: SHELLAC COMPOUNDS	ORGANIC POLYSULFIDES	POLYSTYRENE (Styron)	VINYLIDENE CHLORIDES	VINYL CHLORIDE ACETATES	CAST PHENOL FORMALDEHYDE	HAVEG 41 (Mod Phenolic w. asbestos)	HERESITE (phenol formaldehyde)	MOLDED PHENOL FORMALDEHYDE, (Durez)	PHENOL FURFURAL PLASTICS	UREA FORMALDEHYDE	CASEIN PLASTICS	EPOXY RESINS	FURANE RESINS Haveg 61, Duralon	SILICONE RESINS	PERMANITE (Furan. Glass Fiber)	NYLON (Adipic Acid—Hexameth. Diamine)	DURCON 6 (Modif. Epoxy)	WOODS: CYPRESS	FIR	MAPLE	OAK	PINE	REDWOOD
CARBON DISULFIDE, CS_2	–		o	o		x			x	x			o	x		x	x	x						
CARBON TETRACHLORIDE (Moist) CCl_4	o	–	o	x	x	x	x	x	x	x			x	x		x	x	x						
CHLORACETIC ACID, $ClCH_2CO_2H$		x	x				x	x	x	x							o	x						
CHLORIC ACID, $HClO_3$																		o						
CHLORINE (DRY), Cl_2			x	x	x	–	–	–	–	–			o	–		–	o	o						
" (Wet), Cl_2			x	x	x	–	–		–	–			o			–	o	+						
CHLOROBENZENE, C_6H_5Cl		o	o	o			–							–	x	x								
CHLOROFORM, $CHCl_3$													x				x	x*						
CHROMIC ACID, CrO_3 sol'n			o	x		o	o	x	o	o			o	o		o	o	x						
COPPER CHLORIDE, $CuCl_2$	–						x						x	x			o	x						
" CYANIDE, $Cu(CN)_2$													x					x						
" NITRATE $Cu(NO_3)_2$																	x	x						
" SULFATE $CuSO_4$	x		x			x	x	x	x	x			x	x		x	o	x						
CRESYLIC ACID																	o	x						
DICHLORETHANE, $C_2H_4Cl_2$																		x						
DIETHYLAMINE, $(C_2H_5)_2NH$																		x						
DIPHENYL, $C_6H_5C_6H_5$																		x						
ETHERS, Various			o	o	o	–	–		–	–		x	–	x		x		x						
ETHYL ACETATE, $C_2H_5COOCH_3$			o	o	o	–	o		–	–		x	x	x		x	x	x						
" ALCOHOL, C_2H_5OH	o	–	–	x	x		x		x	x	x		x	–			x	x						
ETHYL CHLORIDE, C_2H_5Cl													x				x	x						
ETHYLENE CHLOROHYDRIN, $Cl(C_2H_4)OH$			–			–			–	–			x					x	x					x
" DICHLORIDE, $C_2H_4Cl_2$			o	o	o		x						x			x	x	x						
" GLYCOL, CH_2OHCH_2OH			x	–	–	–	x		–	–			x	x			x	x				x		
" OXIDE, CH_2OCH_2																	x	x						
FATTY ACIDS, Various			o	x		–	–	x	x	–	x		x	x	–		x	x	x		x	x	x	–
FERRIC CHLORIDE, $FeCl_3$	x		x	x	x	x	x	x	x	x	x		x	x			o	+*						
" NITRATE, $Fe(NO_3)_3$							x						x	x		x		x						
" SULFATE, $Fe_2(SO_4)_3$	x		x	x	x	x	x	x	x	x	x		x	x		x	x	x						
FERROUS CHLORIDE, $FeCl_2$	x		x	x	x	x	x		x	x	x		x	x			o	x						
" SULFATE, $FeSO_4$	x		x	x	x	x	x	x	x	x	x		x	x		x	o	+						
FLUORINE, F_2							o						o	o			o							
FORMALDEHYDE, CH_2O	x			x	x		x	x		x	x		x				x	x						
FORMIC ACID, HCOOH	–		x	x	x	x	x	x	x	x	x		x	x			o	x						
FUEL OIL			–	x			x											+*						
GALLIC ACID, $(OH)_3C_6H_2COOH$																	x	x						
GASOLINE, Refined			–	–	–	–	x		–	–		x	x	x		x	x	x						
GLYCEROL, $CH_2OH.CHOH.CH_2OH$			x	–	–	–			–	–			x			x	x	x						
HYDROBROMIC ACID, HBr	x	x	x	x	x	x	x		x	x			x	–		x	o	x						
HYDROCHLORIC ACID, (Conc.), HCl	x	o	o	o		–	x	x	–	–			x	–	–	x	o	x	o	–	o	o	o	o
" (Dilute)	x	x	x	x	x	x	x	x	–	–		x	x		–	x	o	x	x	x	x	x	x	–
" (Dry Gas)													x					x						
HYDROCYANIC ACID, (Conc.), HCN													x			x		x						
" " (Dil. & Gas)													x			x		x						
HYDROFLUORIC ACID, (Conc.), HF			x			–	o	o	–	–	–		x	o	o	–		x						
" " (Dilute)			x				o	–	x	x			x	x	o	x	o	x						
HYDROFLUOSILICIC ACID, H_2SiF_6																x		x						
HYDROCARBONS (Aliphatic)	–	–	x	–		–	–	x	x	–	–	x	x					+*						

(continued)

TABLE 7.2: METAL, CARBON, CERAMIC, RUBBER, PLASTIC AND WOOD CONSTRUCTION MATERIALS—CORNING (continued)

MATERIALS
X - Very Good Service
+ - Moderate Service
– - Limited or Variable Service
o - Unsatisfactory
Blank - No Information

CHEMICALS
SOLIDS ASSUMED IN SOL'N.
ROOM TEMPERATURES ASSUMED UNLESS OTHERWISE STATED

	THERMOSETTING PLASTICS																		WOODS					
CHEMICALS	SHELLAC COMPOUNDS	ORGANIC POLYSULFIDES	POLYSTYRENE (Styron)	VINYLIDENE CHLORIDES	VINYL CHLORIDE ACETATES	CAST PHENOL FORMALDEHYDE	HAVEG 41 (Mod Phenolic w. asbestos)	HERESITE (phenol formaldehyde)	MOLDED PHENOL FORMALDEHYDE (Durez)	PHENOL FURFURAL PLASTICS	UREA FORMALDEHYDE	CASEIN PLASTICS	EPOXY RESINS	FURANE RESINS Haveg 61, Duralon	SILICONE RESINS	PERMANITE (Furan, Glass Fiber)	NYLON (Adipic Acid—Hexameth. Diamine)	DURCON 6 (Modif. Epoxy)	CYPRESS	FIR	MAPLE	OAK	PINE	REDWOOD
HYDROCARBONS (Aromatic)	o	o	o	–	–	–	x	x	–	–		x						x						
HYDROGEN GAS, H_2													x				x	x						
HYDROGEN PEROXIDE (Conc.), H_2O_2		o	o	o		–	x	x	x	–							o	x						
" " (Dilute)		o	o	–		x	x	x	–	–			o	o			o	x						
HYDROGEN SULFIDE (Dry) H_2S		–		x		–	x		x	–			x	x		x	o	x						
" " (Wet)																		x						
IODINE, I_2 Wet							o	x					o	o		o	o	x						
IODOFORM, CHI_3																	x	x						
KEROSENE																	x	x						
KETONES, Various			o	–			x						–			x	x	x						
LACTIC ACID, $CH_3CHOHCOOH$			x				x	x					x	x		x	–	x						x
LEAD ACETATE, $Pb(CH_3COO)_2$							x						x	x		x		x						
MAGNESIUM CHLORIDE, $MgCl_2$	x	x	x	x	x	x	x	x	x	x	x		x	x			x	x						
" HYDROXIDE, $Mg(OH)_2$																	x	x						
" SULFATE, $MgSO_4$	x	x	x	x	x	x			x	x	x		x	x			x	x						
MALEIC ACID, $CO_2H\,C_2H_2\,CO_2H$													x				x	†*						
MALIC ACID, $CO_2H\,CH_2\,CHOH\,CO_2H$			x														x	x						
MERCURIC CHLORIDE, $HgCl_2$													x					x						
MERCURY, Hg													x				x	x						
METHANOL, Conc., CH_3OH			x				–		x	x			x	x			x	x						
" (Dilute)			x						x	x			x			x		x						
METHYL CHLORIDE, CH_3Cl													x				x	x						
NAPHTHA, Petroleum			–	–	–	–			–	–		x	x				x	x						
NICKEL CHLORIDE, $NiCl_2$													x	x			x							
" SULFATE, $NiSO_4$			x						x	x			x	x			x	x						
NITRATING ACID (>15% H_2SO_4)							o	x					o					x*						
" " (<15% H_2SO_4)							–	x										x						
" " (<15% HNO_3)							–	x										x						
" " (< 1% Acid)							–	x										†*						
NITRIC ACID, Conc., HNO_3			o	o	o	o	o	x	o	o			o	o	–	o	o	x						
" " Dilute			x	–	–	–	–	x	–	–			o		–	o		x						
NITROBENZENE, $C_6H_5NO_2$													–					x						
NITROUS ACID, HNO_2		x																x						
OLEIC ACID, $C_8H_{17}CH{:}CH(CH_2)_7CO_2H$			x	x	x	–	x	x	x	–	x		x				x	x	x	x	x	x		–
OXALIC ACID, $CO_2H\,CO_2H$			x			x	x	x	x	x			x	x		x	o	x						
PHENOL (Conc.) C_6H_5OH			o			–	–	x	–	–				x		x	o	x						
" (Dilute)			o						x	x			–	x				x						
PHOSPHORIC ACID (100%), H_3PO_4				x	x		x	x						–	–	–	–	x						
" " (>45% Hot)							x	x	o	o			x	x	o			x						
PHOSPHORIC ACID (>45% Cold)			x				x	x					x		–			x						
" ACID (<45%) "							x	x							–	x	o	x						
" ANHYDRIDE, Dry or Moist																		x						
" " Molten, P_2O_5																		x						
PHTHALIC ANHYDRIDE, $C_6H_4(CO)_2O$													x					x						
PICRIC ACID, Sol'n., $HOC_6H_2(NO_2)_3$																		x						
POTASSIUM BROMIDE, KBr																		x						
" CARBONATE, K_2CO_3													x				x	x						

(continued)

TABLE 7.2: METAL, CARBON, CERAMIC, RUBBER, PLASTIC AND WOOD CONSTRUCTION MATERIALS—CORNING (continued)

MATERIALS
x - Very Good Service
+ - Moderate Service
– - Limited or Variable Service
o - Unsatisfactory
Blank - No Information

CHEMICALS
SOLIDS ASSUMED IN SOL'N.
ROOM TEMPERATURES ASSUMED
UNLESS OTHERWISE STATED

CHEMICALS	THERMOSETTING PLASTICS																		WOODS					
	SHELLAC COMPOUNDS	ORGANIC POLYSULFIDES	POLYSTYRENE (Styron)	VINYLIDENE CHLORIDES	VINYL CHLORIDE ACETATES	CAST PHENOL FORMALDEHYDE	HAVEG 41 (Mod Phenolic w. asbestos)	HERESITE (phenol formaldehyde)	MOLDED PHENOL FORMALDEHYDE (Durez)	PHENOL FURFURAL PLASTICS	UREA FORMALDEHYDE	CASEIN PLASTICS	EPOXY RESINS	FURANE RESINS Haveg 61, Duralon	SILICONE RESINS	PERMANITE (Furan, Glass Fiber)	NYLON (Adipic Acid—Hexameth. Diamine)	DURCON 6 (Modif. Epoxy)	CYPRESS	FIR	MAPLE	OAK	PINE	REDWOOD
POTASSIUM CHLORATE, $KClO_3$																	o	x						
" CHLORIDE, KCl							x						x	x		x	x	x						
" CYANIDE, KCN																	x	x						
" DICHROMATE, $K_2Cr_2O_7$													x					x*						
" FERROCYANIDE, $K_4Fe(CN)_6$													x				x	x						
" HYDROXIDE, KOH			x				o		o	o			x	x		x	x	x						
" NITRATE, KNO_3													x					x						
" PERMANGANATE, $KMnO_4$			x						x	x			x	x			o	x						
" SULFATE, K_2SO_4			x				x		x	x			x	x		x	x	x						
" SULFIDE, K_2S																	x	x						
PYROGALLOL, $C_6H_3(OH)_3$																		x*						
SILVER NITRATE, $AgNO_3$						–			–				x				x	x						
SODIUM, Molten 210°- 400°F.			o	o			o	o										x						
SODIUM ACETATE, $NaCH_3COO$													x				–	x						
" BICARBONATE, $NaHCO_3$	x		x	x	x	x	x		x	x			x	x		x	x	x						
" BISULFATE, $NaHSO_4$			x	x	x	–	x	x	x	–		x	x	x		x		x						
" BISULFITE, $NaHSO_3$									x			x	x				o	x*	x	x	x	x	x	
" BORATE $Na_2B_4O_7$	x		x	x	x	–			–	–							x	x*						
" CARBONATE, Na_2CO_3			x			x	x	x	x	x		o	x	x		x	x	x*	+	+	+	x	+	+
" CHLORATE, $NaClO_3$	x	x	x	x	x	x			x	x	x	x					o	x	x	x	x	x	x	
" CHLORIDE, NaCl			x				x	x	x	x			x	x	x	x	x	x	x	x	x	x	+	+
" CYANIDE, NaCN													x				–	x						
" FLUORIDE, NaF																	x	x						
" HYDROXIDE, (Conc.), NaOH			x			o	o	o	o	o	o		x	x	–	x	x	x	–	–	o	o	o	
HYDROXIDE, (Dilute)		x	x	x	x	–	o	–	o	o	x		x	x	–		x	x	–	–	o	o	–	–
" HYDROSULFITE						x			x	x								x						
" HYPOCHLORITE, NaOCl			x	x	x	–	o	x	–	–			o	o		o	o							
" HYPOSULFATE																								
" NITRATE, $NaNO_3$			x			x	x	x	x	x			x	x			o	x						
" PEROXIDE, Na_2O_2																		x						
" PHOSPHATE, (Tri) Na_3PO_4			–			–	–		x	–			x	x		x	x	x						
" SILICATE, Na_2SiO_3			x			x			x	x							x	x						
" SULFATE, Na_2SO_4							x	x					x	x		x	x	x						
" SULFIDE, Na_2S			x				x	x				–	x				x	+*	–	–	o	o	–	–
" SULFITE, Na_2SO_3						–	x	x	–	–			x	x		x	x	x						
STANNIC CHLORIDE, $SnCl_4$							x									x	o	x						
STANNOUS CHLORIDE, $SnCl_2$													x					x						
STEARIC ACID, $CH_3(CH_2)_{16}COOH$							x	x					x				x	x						
SULFUR, Molten, S							x	o										x						
SULFUR CHLORIDE, (Wet), $S_?Cl_2$																		x						
" DIOXIDE (Dry), SO_2				x	x		x						x				–	x						
" DIOXIDE (Wet)																	o	x						
" TRIOXIDE, SO_3				x	x								x				x	x						
SULFURIC ACID (Fuming to 98%)			o			o			o	o			o	o	o			x	o	o	o	o	o	o
" " (Hot Conc.) H_2SO_4							o						o	o				x	o	o	o	o	o	o
" " (Cold Conc.)							–						o			o	o	x	o	o	o	o	o	o
" " (75%-95%)			–				–		–	–			–	–	–			x						
" " (10%-75%)	x	x	x	x	x	–	x		–	–		o	x	x	–		–	x	–	–	–	–	–	–
" " (<10%)	x	x	x	x	x	–	x		x	x	x	–		x	–	x	–	x	–	–	x	–	–	–
SULFUROUS ACID, H_2SO_3			x			x	x		x	x		x	x	x	–	x	o	+*				x	x	
SULFURYL CHLORIDE, SO_2Cl_2									x									x						
TANNIC ACID			x			x	x		x	x	x	x	x	x		x		x				x	x	
TARTARIC ACID, $(CHOHCOOH)_2$						–	x		–	–	x		x	x		x	x	x						
TOLUENE, $CH_3C_6H_5$	o	o	o	–	–	–	–		–	–		x		x		x	x	x	–	–	x	x	x	
TRICHLORETHYLENE, Dry, $Cl_2C:CHCl$							x						x				x	x						
WATER, Fresh H_2O	x	x	x	x	x	x			x	x	x	o						x	x	x	x	x	x	x
WATER, Distilled Lab.																		x						
ZINC CHLORIDE, $ZnCl_2$			x			–	x		x	–			x	x		x	–	x						
" SULFATE, $ZnSO_4$			x				x		x	x			x	x		x	x	x						

*Durcon 5 would be the preferred formula