Chemical Resistance of PVC Products



PALRAM Technical Support Department

The mechanism of chemical attack on thermoplastics in general, and PALRAM PVC sheets in particular, differs significantly from the mechanism of corrosion of metals. Corrosion of metals results in a gradual loss of surface material as a result of electrolytic action by the relevant chemicals. Chemical attack on PALRAM PVC sheet, where it occurs, consists generally of absorption of the chemical by the PVC sheet and its subsequent swelling. The chemical resistance behavior of PALRAM PVC sheets is therefore simple to determine. The chemical resistance is expressed in terms of weight change (usually an increase) and volume change.

The table that appears in the following pages lists the resistance of PALRAM PVC sheets to a number of commonly encountered chemicals and other corrosive media at room temperature. (Information on chemical resistance at higher temperatures will be supplied upon request.) Where the chemical resistance varies with concentration, the results of tests at different concentrations is presented. The information listed is based on long-term laboratory tests and actual service installations.

For chemicals and corrosive media not listed in the list, please contact your PALRAM representative. He will place you in contact with the PALRAM Technical Support Department.

It is important to note that PALRAM PVC sheets are generally not recommended for use with acetone, ketones, ethers, and aromatic and chlorinated hydrocarbons.

The information on chemical resistance is based on our research and experience. It serves as a basis for recommendation. PALRAM does not guarantee chemical resistance, unless specific tests are carried and separate documentation is supplied.

The table on the following pages uses the following key:

R - Resistant

LR - Limited Resistance (gradual attack over time may occur)

N - Not Resistant (rapid attack or attack over short time period will occur)

of the product should make his own tests to determine the product's suitability for his own particular use including the suitability of environmental conditions for the product. Statements concerning possible or suggested uses of the products described herein are not to be construed as constituting a license under any PALRAM Industries patent covering such use or as recommendations for use of such products in the infringement of any patent. PALRAM Industries or its distributors cannot be held responsible for any losses incurred through inco of the product. In accordance with our Company policy of continual product development you are advised to check with your local PALRAM Industries supplier to ensure that you have obtained





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Chemical Resistance of PVC Products at Room Temperature



Acetald Acid 80 R Bromobenzene N Acetic Acid 80 R Butadiene N Acetic Acid 100 LR Butadiene N Acetic Aniydride N N Butyl Acetate N Acetone N N Butyl Acetate N Acetylene N Butyl Acetate N R Acetylene R Butyl Acetate R R Alyl Akchol LR Calchum Hydrocide R R Alluminum Chloride Saturated R Calchum Hydrocide R R Alluminum Fluoride R Calchum Hydrocide R R Auminum Sulface R R Alluminum Sulfate Saturated R Calchum Hydrocide R R Alluminum Hydrocide R Calchum Bydrocide R R Ammonium Sulfate Saturated R Calchum Hydrocide R R Ammonium Buturite R <	Chemical	Concentration %*	Resistance	Chemical	Concentration %*	Resistance
Acetic Acid 100 LR Butane N Aceta Anhydride N N Buryl Acetate N Acetone N Buryl Actohol R Acetylene N Buryl Stearace R Acetylene R Butyl Stearace N Allyl Acchol R Calcium Hydroxide R Alluminum Chloride Saturated R Calcium Hypechlorite R Aluminum Flacride Saturated R Calcium Hypechlorite R Aluminum Flacride R Calcium Hypechlorite R R Aluminum Flacride R Calcium Nitrate R R Aluminum Suffare Saturated R Calcium Nitrate R R Ammonia (Sas) R Carbon Dioxide Gas (Moist) R R R Ammonium Suffare Saturated R Carbon Dioxide Gas (Moist) N R Ammonium Suffare R Carbon Monoxide N N N	Acetaldehyrde	100	N	Bromobenzene		N
Acetone N Butyl Acetone N Acetone N Buryl Alcohol R Actylonirife N Buryl Sterate R Actylonirife N Buryl Sterate R Actylonirife R Burylic Acid N Ajax R Burylic Acid N Ajax R Calcium Hydroide R Aluminum Chloride Saturated R Calcium Hydroide R Aluminum Brude R Calcium Sulfate R R Aluminum Sulfate Saturated R Calcium Sulfate R R Aluminum Sulfate Saturated R Carbon Disalfee (Sas (Moist) R R Aluminum Brudide R Carbon Disalfee R R Ammonium Brudide R Carbon Disalfee R R Ammonium Brudide R Carbon Disalfee R R Carbon Disalfee N R Ammonium Brudide R Carbon Disalfee N	Acetic Acid	80	R	Butadiene		N
Acetonie N Buryl Alcohol R Acrylonitrile N Buryl Sterate R Acetylene R Burylric Acid N Ajax R Buryl Sterated N Aljyl Alcohol IR Calcium Hydrodide R Aluminum Fluoride Saturated R Calcium Hydrodide R Aluminum Hydroxide R Calcium Sufate R R Aluminum Hydroxide R Calcium Sufate R R Aluminum Hydroxide R Carbon Dioxide Gas (Moist) R R Ammonia (Gas) R Carbon Bousdie Gas (Moist) R R Ammonium Acetate R Carbon Bousdie Gas (Moist) N R Ammonium Bifluoride R R Carbon Bousdie Gas (Moist) R R Ammonium Bifluoride R R Carbon Bousdie Gas (Moist) N R Ammonium Bifluoride R R Carbon Bousdie Gas (Moist) N N Ammonium	Acetic Acid	100	LR	Butane		N
Accylonitorile N Butyl Stearate R Accylone R Burylik Acido N Ajax R Calcium Chloride Saturated R Allyl Achonl LR Calcium Hydroxide R R Alluminum Eluoride R Calcium Minate R R Aluminum Hudroxide R Calcium Minate R R Aluminum Sulfate Saturated R Calcium Sulfate R R Ammonium Sulfate Saturated R Carbon Dioxide Gas (Moist) R R Ammonium Sulfate Saturated R Carbon Dioxide Gas (Moist) R R Ammonium Buffueride R Carbon Dioxide Gas (Moist) R R R Ammonium Buffueride R Carbon Dioxide Gas (Moist) R R R Ammonium Buffueride R Carbon Tetrachloride N N Ammonium Buffueride R Carbon Tetrachloride N Ammonium Buffueride 25 LR	Acetic Anhydride		N	Butyl Acetate		N
Acetylene R Butyric Acid N Ajax R R Calcium Chloride Saturated R Ally Alkohol LR Calcium Hydroxide R R Aluminum Flordide R Calcium Hydroxide R R Aluminum Hydroxide R Calcium Nitrate R R Aluminum Hydroxide R Calcium Nitrate R R Aluminum Sulfate Saturated R Carphon Dioxide Gas (Moist) R R Ammonium Sulfate R Carbon Dissulfide N R R Ammonium Acetate R R Carbon Monoxide R R Ammonium Bifluoride R R Carbon Monoxide N R Ammonium Bifluoride R R Carbon Monoxide N R Ammonium Bifluoride R R Carbon Monoxide N R Ammonium Bifluoride R R Castro Potassum Hydroxide 9 R	Acetone		N	Butyl Alcohol		R
Ajax AB Calcium Chloride Saturated R Allyl Alcohol LR Calcium Hydroxide R Aluminum Chloride Saturated R Calcium Nitrate R Aluminum Hydroxide R Calcium Nitrate R Aluminum Suffate R Calcium Suffate R Armonola (Gas) R Carbon Dioxide Gas (Moist) R Armonola (Liquid) N Carbon Dioxide Gas (Moist) R Armonolium Cestate R Carbon Monoxide N Armonolium Bifluoride R Carbon Monoxide R Ammonium Bifluoride R Carbon Tetrachloride N Armonolium Bifluoride R R Castor Oli R Armonolium Bifluoride R R Castor Oli R Armonolium Bifluoride R R Castor Oli R Armonolium Bifluoride 2 R Caustic Soda (Sodium Hydroxide) 50 R Armonolium Sufface Saturated R Chlor	Acrylonitrile		N	Butyl Stearate		R
Allyminum Chloride Saturated R Calcium Hydroxide R R Aluminum Chloride R R Aluminum Hydroxide R R Aluminum Hydroxide R R Aluminum Sulfate R Caclium Sulfate R Carmphor R R Aluminum Sulfate R Carmphor R R Ammonia (Liquid) R R Carbon Dioxide Gas (Moist) R R Ammonia (Liquid) R R Carbon Dioxide Gas (Moist) R R Ammonium Acetate R R Carbon Monoxide R R Ammonium Acetate R R Carbon FrearAbloride R R Chlorine Gas (Wet) R R Chlorine Water R Chlorine Gas (Wet) R R Chlorine Water R Copper Nifate R Chlorine R Copper Nifate R R Copper	Acetylene		R	Butyric Acid		N
Aluminum Chloride	Ajax		R	Calcium Chloride	Saturated	R
Aluminum Fluoride	Allyl Alcohol		LR	Calcium Hydroxide		R
Aluminum Hydroxide R Calcium Sulfate R Aluminum Sulfate Saturated R Camphor R Ammonia (Cago) R R Carbon Dioxide Gas (Moist) R Ammonia (Liquid) N Carbon Dioxide Gas (Moist) N Ammonium Bulludire R Carbon Dioxide R Ammonium Bulludire R Carbon Dioxide R Ammonium Bulludire R Carbon Dioxide R Ammonium Bulludire R Castor Oil R Ammonium Chloride R Caustic Sodal (Sodium Hydroxide) 50 R Ammonium Fluroide 25 LR Caustic Sodal (Sodium Hydroxide) 50 R Ammonium Nitrate 28 R Chlorine Gas (Wet) 50 R Ammonium Sulface Saturated R Chlorine Gas (Wet) N N Ammonium Sulface Saturated R Chlorine Gas (Wet) N N Amil Acetate N Chlorine Gas (Wet) N N	Aluminum Chloride	Saturated	R	Calcium Hypochlorite		R
Aluminum Sulfate Saturated R Camphor R Ammonia (Gas) R Carbon Dioxide Gas (Moist) R Ammonia (Liquid) N Carbon Dioxide Gas (Moist) N Ammonium Acetate R R Carbon Monoxide R Ammonium Billuoride R Carbon Tetrachloride N Ammonium Billuoride R Castor Oil N Ammonium Chloride R Caustic Potash (Potassium Hydroxide) 50 R Ammonium Fluroide 25 LR Caustic Soda (Sodium Hydroxide) 50 R Ammonium Fluroide 28 R Chlorine Dioxide 15 R Ammonium Hydroxide 28 R Chlorine Gas (Wet) 50 R Ammonium Sulfate Saturated R Chlorine Gas (Wet) N N Ammonium Sulfate Saturated R Chlorine Gas (Wet) N N Amyl Acetate A R Chlorine Gas (Wet) N N Amyl Acetate	Aluminum Fluoride		R	Calcium Nitrate		R
Aluminum Sulfate Saturated R Camphor R Ammonia (Gas) R Carbon Dioxide Gas (Moist) R Ammonia (Liquid) N Carbon Dioxide Gas (Moist) N Ammonium Brunde R Carbon Dioxide Gas (Moist) R Ammonium Billuoride R Carbon Tetrachloride N Ammonium Billuoride R Castor Oil R Ammonium Chloride R Caustic Potash (Potassium Hydroxide) 50 R Ammonium Fluroide 25 LR Caustic Soda (Sodium Hydroxide) 50 R Ammonium Fluroide 28 R Chlorine Dioxide 15 R Ammonium Hydroxide 28 R Chlorine Gas (Wot) 50 R Ammonium Sulfate 28 R Chlorine Gas (Wot) N N Ammonium Sulfate Saturated R Chlorine Gas (Wot) N N Amyl Acetate S R Chlorine Gas (Wot) N N Amyl Alcohol Pure	Aluminum Hydroxide		R	Calcium Sulfate		R
Ammonia (Liquid) N Carbon Disulfide N Ammonium Acetate R Carbon Monoxide R Ammonium Bisulfate R Carbon Tetrachloride N Ammonium Bisulfate R Castor Oil R Ammonium Chloride R Castic Potash (Potassium Hydroxide) 50 R Ammonium Fluroide 25 LR Caustic Soda (Sodium Hydroxide) 50 R Ammonium Hydroxide 28 R Chlorine Dioxide 50 R Ammonium Hydroxide 28 R Chlorine Gas (Org) N N Ammonium Sulfate Saturated R Chlorine Gas (Wet) N N Ammonium Sulfate Saturated R Chlorine Water 2 R Ammonium Sulfate Saturated R Chlorine Water 2 R Ammonium Sulfate Saturated R Chlorine Water 2 R Amyl Acetate N Chlorine Water 2 R Amyl Acetate	·	Saturated	R	Camphor		R
Ammonium Acetate R Carbon Monoxide R Ammonium Bifluoride R Carbon Tetrachloride N Ammonium Bisulfate R Castor Oil R Ammonium Chloride R Castor Coil So R Ammonium Fluroide 25 LR Caustic Potash (Potassium Hydroxide) 50 R Ammonium Hydroxide 28 R Chlorine Dioxide 15 R Ammonium Hydroxide 28 R Chlorine Gas (Wet) N N Ammonium Sulfate Saturated R Chlorine Gas (Wet) N N Ammonium Sulfide Saturated R Chlorine Water 2 R Amyl Alcohol Pure LR Chlorobenzene N N Amyl Alcohol Pure LR Chlorobenzene N N Antiline N Chlorobenzene N N Antiline N Chlorobenzene N N Antiline N Chlorobenzene <t< td=""><td>Ammonia (Gas)</td><td></td><td>R</td><td>Carbon Dioxide Gas (Moist)</td><td></td><td>R</td></t<>	Ammonia (Gas)		R	Carbon Dioxide Gas (Moist)		R
Ammonium Bifluoride R Carbon Tetrachloride N Ammonium Bisufate R Castor Oll R Ammonium Chloride R Caustic Potash (Potassium Hydroxide) 50 R Ammonium Fluroide 25 LR Caustic Soda (Sodium Hydroxide) 50 R Ammonium Fluroide 28 R Chlorine Dioxide 15 R Ammonium Sulfate R Chlorine Gas (Dry) N N Ammonium Sulfate Saturated R Chlorine Gas (Wet) N N Ammonium Sulfate Saturated R Chlorine Water 2 R Ammonium Sulfate Saturated R Chlorioe Water 2 R Ammonium Sulfate Saturated R Chlorioe Water 2 R Ammonium Sulfate Saturated R Chlorioe Water 2 R Amyl Acetate N Chlorioe Water 2 R Amyl Acetate R Chlorioe Saturated R <	Ammonia (Liquid)		N	Carbon Disulfide		N
Ammonium Bisulfate R Castor Oil R Ammonium Chloride R Caustic Potash (Potassium Hydroxide) 50 R Ammonium Fluroide 25 LR Caustic Soda (Sodium Hydroxide) 50 R Ammonium Flydroxide 28 R Chlorine Dioxide 15 R Ammonium Sulfate 8 Chlorine Dioxide 15 R Ammonium Sulfate Saturated R Chlorine Gas (Dry) N N Ammonium Sulfate Saturated R Chlorine Gas (Wet) N N Ammonium Sulfate Saturated R Chlorine Water 2 R Amyl Alcohol Pure LR Chlorobenzene 2 R Amyl Alcohol Pure LR Chloroform N N Aniline N Chloroform Saturated R Anje Gagia (3 parts HCk1 part HNO3) N Chrome Alum Saturated R Arsenic Acid 80 R Citric Acid Saturate	· · · · · · · · · · · · · · · · · · ·		R	Carbon Monoxide		R
Ammonium Chloride R Caustic Potash (Potassium Hydroxide) 50 R Ammonium Fluroide 25 LR Caustic Soda (Sodium Hydroxide) 50 R Ammonium Fluroide 28 R Chlorine Dioxide 15 R Ammonium Nitrate R Chlorine Gas (Wet) N N Ammonium Sulfide Saturated R Chlorine Gas (Wet) N N Ammonium Sulfide Saturated R Chlorine Gas (Wet) N N Ammonium Sulfide Saturated R Chlorine Gas (Wet) N N Ammonium Sulfide Saturated R Chlorine Gas (Wet) N N Ammonium Sulfide Saturated R Chlorine Gas (Wet) N N Ammonium Sulfide Saturated R Chloroberezene N N Amiline Pure LR Chloroberezene N N Antiline N Chloroberezene N N Antiline R	Ammonium Bifluoride		R	Carbon Tetrachloride		N
Ammonium Fluroide 25 LR Caustic Soda (Sodium Hydroxide) 50 R Ammonium Hydroxide 28 R Chlorine Dioxide 15 R Ammonium Nitrate R Chlorine Gas (Dry) N Ammonium Sulfide Saturated R Chlorine Gas (Wet) N Ammonium Sulfide Saturated R Chlorine Water 2 R Amyl Acetate N Chlorobenzene N R Amyl Alcohol Pure LR Chlorobenzene N Aniline N Chlorobenzene N N Antimony Trichloride R Chloroform N N Antimony Trichloride R Chrome Alum Saturated R Agua Regia (3 parts HCl:1 part HNO ₃) N Chromic Acid 10 R Arsenic Acid 80 R Citric Acid Saturated R Barium Hydroxide R Copper Fluride R R Barium Sulfate R Co	Ammonium Bisulfate		R	Castor Oil		R
Ammonium Fluroide 25 LR Caustic Soda (Sodium Hydroxide) 50 R Ammonium Hydroxide 28 R Chlorine Dioxide 15 R Ammonium Nitrate R Chlorine Gas (Dry) N Ammonium Sulfide Saturated R Chlorine Gas (Wet) N Ammonium Sulfide Saturated R Chlorine Water 2 R Amyl Acetate N Chlorobenzene N R Amyl Alcohol Pure LR Chlorobenzene N Aniline N Chlorobenzene N N Antimony Trichloride R Chloroform N N Antimony Trichloride R Chrome Alum Saturated R Agua Regia (3 parts HCl:1 part HNO ₃) N Chromic Acid 10 R Arsenic Acid 80 R Citric Acid Saturated R Barium Hydroxide R Copper Fluride R R Barium Sulfate R Co	Ammonium Chloride		R	Caustic Potash (Potassium Hydroxide)	50	R
Ammonium Hydroxide 28 R Chlorine Dioxide 15 R Ammonium Nitrate R Chlorine Gas (Dry) N Ammonium Sulfate Saturated R Chlorine Gas (Wet) N Ammonium Sulfate Saturated R Chlorine Water 2 R Amyl Actate N Chloroacetic Acid R R Amyl Alcohol Pure LR Chlorobenzene N N Anliline N Chloroform N N Antimony Trichloride R Chrome Alum Saturated R Aqua Regia (3 parts HCl:1 part HNO3) N Chrome Alum Saturated R Arsenic Acid 80 R Citric Acid Saturated R Barium Chloride R Copper Fluoride R R Barium Sulfide R Copper Fluoride R R Barium Sulfide R Copper Sulfate R R Barium Sulfide R Copper Sulfate R R Berer R Cottonseed Oil R R <td>Ammonium Fluroide</td> <td>25</td> <td>LR</td> <td>· · · · · · · · · · · · · · · · · · ·</td> <td>50</td> <td>R</td>	Ammonium Fluroide	25	LR	· · · · · · · · · · · · · · · · · · ·	50	R
Ammonium Nitrate R Chlorine Gas (Dry) N Ammonium Sulfate Saturated R Chlorine Gas (Wet) N Ammonium Sulfade Saturated R Chlorine Water 2 R Amyl Acetate N Chlorobenzene 2 R Amyl Alcohol Pure LR Chlorobenzene N N Amiline N Chloroform N N Antiline N Chloroform N N Antiline R Chrome Alum Saturated R Aqua Regia (3 parts HCl:1 part HNO3) N Chrome Alum Saturated R Agai and Saturated R Chrome Alum Saturated R Arsenic Acid 80 R Citric Acid Saturated R Barium Chloride R Copper Fluitate Saturated R Barium Hydroxide R Copper Sulfate R R Barium Sulfate R Copper Sulfate R R <td>Ammonium Hydroxide</td> <td>+</td> <td></td> <td></td> <td>15</td> <td>R</td>	Ammonium Hydroxide	+			15	R
Ammonium Sulfate Saturated R Chlorine Gas (Wet) N Ammonium Sulfide Saturated R Chlorine Water 2 R Amyl Acetate N Chloroacetic Acid R R Amyl Alcohol Pure LR Chlorobenzene N N Aniline N Chloroform N N Antimony Trichloride R Chrome Alum Saturated R Aqua Regia (3 parts HCl:1 part HNO3) N Chromic Acid 10 R Arsenic Acid 80 R Citric Acid Saturated R Barium Chloride R Copper Fluoride R R Barium Hydroxide R Copper Fluoride R R Barium Sulfiate R Copper Sulfate R R Barium Sulfide R Copper Sulfate R R Beer R Corn Syrup R R Beer (Sugar Liquor) R Cresol N N Benzaldehyde LR Cresol Saturated R	· · · · · · · · · · · · · · · · · · ·			Chlorine Gas (Dry)		N
Ammonium Sulfide Saturated R Chlorine Water 2 R Amyl Acetate N Chloroacetic Acid R Amyl Alcohol Pure LR Chlorobenzene N Aniline N Chloroform N Antimony Trichloride R Chrome Alum Saturated R Aqua Regia (3 parts HCl:1 part HNO3) N Chrome Alum Saturated R Arsenic Acid 80 R Citric Acid Saturated R Barium Chloride R Copper Fluoride R R Barium Hydroxide R Copper Nitrate R R Barium Sulfide R Copper Sulfate R R Barium Sulfide R Copper Sulfate R R Bear Sulfide R Copper Sulfate R R Bear Sulfide R Cottonseed Oil R R Beet (Sugar Liquor) R Cottonseed Oil R R Benzaldehyde LR Cresylic Acid Saturated R Benziene <td>Ammonium Sulfate</td> <td>Saturated</td> <td>R</td> <td>. /</td> <td></td> <td>N</td>	Ammonium Sulfate	Saturated	R	. /		N
Amyl AlcoholPureLRChlorobenzeneNAnilineNChloroformNAntimony TrichlorideRChrome AlumSaturatedRAqua Regia (3 parts HCl:1 part HNO3)NChromic Acid10RArsenic Acid80RCitric AcidSaturatedRBarium ChlorideRCopper FluorideRRBarium HydroxideRCopper NitrateRRBarium SulfateRCopper SulfateRRBarium SulfideRCorn SyrupRRBeerRCottonseed OilRRBeet (Sugar Liquor)RCresolNBenzaldehydeLRCresolNBenzeneNCupric ChlorideSaturatedRBenzoic AcidRCuprous ChlorideSaturatedRBenzyl AlcoholRCyclohexaneNBleach12% ChlorineRCyclohexaneNBoric AcidRCyclohexanoneNBrineRDettroseRRBromic AcidRDetergent (most)RRBromine (Liquid)NDiethyl Ether (Ethyl Ether)RBromine (Water)LRDimethyl AmineNN	Ammonium Sulfide	Saturated	R	Chlorine Water	2	R
Aniline N Chloroform N Antimony Trichloride R Chrome Alum Saturated R Aqua Regia (3 parts HCl:1 part HNO ₃) N Chromic Acid 10 R Arsenic Acid 80 R Citric Acid Saturated R Barium Chloride R Copper Fluoride R Barium Hydroxide R Copper Nitrate R Barium Sulfate R Copper Sulfate R Barium Sulfide R Copper Sulfate R Barium Sulfide R Copper Sulfate R Beer R Corn Syrup R Beer R Cottonseed Oil R Beet (Sugar Liquor) R Cresol N Benzaldehyde LR Cresylic Acid Saturated R Benzolc Acid R Cuprous Chloride Saturated R Benzolc Acid R Cuprous Chloride Saturated R Benzyl Alcohol R Cyclohexane N Bleach 12% Chlorine R Cyclohexane N Boric Acid R Cyclohexano N Brine R Detergent (most) R Bromine (Liquid) N Diethyl Ether (Ethyl Ether) R Bromine (Water) N Dimethyl Amine	Amyl Acetate		N	Chloroacetic Acid		R
Antimony Trichloride R Chrome Alum Saturated R Aqua Regia (3 parts HCl:1 part HNO ₃) N Chromic Acid 10 R Arsenic Acid 80 R Citric Acid Saturated R Barium Chloride R Copper Fluoride R Barium Hydroxide R Copper Nitrate R Barium Sulfate R Copper Sulfate R Barium Sulfate R Copper Sulfate R Barium Sulfate R Corn Syrup R Beer R Cottonseed Oil R Beet (Sugar Liquor) R Cresol N Benzaldehyde LR Cresylic Acid 50 R Benzene N Copper Sulfate Saturated R Benzoic Acid R Corn Syrup R Benzene R Cottonseed Oil R Benzene N Cupric Chloride Saturated R Benzoic Acid R Cuprous Chloride Saturated R Benzoic Acid R Cyclohexane N Bleach 12% Chlorine R Cyclohexane N Boric Acid R Cyclohexanol N Boric Acid R Destrose R Brine R Detergent (most) R Bromine (Liquid) N Diethyl Ether (Ethyl Ether) R Bromine (Water) LR Dimethyl Amine	Amyl Alcohol	Pure	LR	Chlorobenzene		N
Aqua Regia (3 parts HCl:1 part HNO ₃) Arsenic Acid Barium Chloride Barium Hydroxide Barium Sulfate Bariu	Aniline		N	Chloroform		N
Aqua Regia (3 parts HCl:1 part HNO3)NChromic Acid10RArsenic Acid80RCitric AcidSaturatedRBarium ChlorideRCopper FluorideRBarium HydroxideRCopper NitrateRBarium SulfateRCopper SulfateRBarium SulfideRCorn SyrupRBeerRCottonseed OilRBeet (Sugar Liquor)RCresolNBenzaldehydeLRCresylic Acid50RBenzeneNCupric ChlorideSaturatedRBenzoic AcidRCuprous ChlorideSaturatedRBenzyl AlcoholRCyclohexaneNBleach12% ChlorineRCyclohexanolNBoric AcidRCyclohexanoneNBrineRDextroseRBrineRDetergent (most)RBromine (Liquid)NDiesel FuelRBromine (Water)LRDimethyl Ether (Ethyl Ether)R	Antimony Trichloride		R	Chrome Alum	Saturated	R
Arsenic Acid 80 R Citric Acid Saturated R Barium Chloride R Copper Fluoride R Barium Hydroxide R Copper Nitrate R Barium Sulfate R Copper Sulfate R Barium Sulfate R Copper Sulfate R Barium Sulfide R Corn Syrup R Beer R Cottonseed Oil R Beet (Sugar Liquor) R Cresol N Benzaldehyde LR Cresol Saturated R Benzene N Cupric Chloride Saturated R Benzoic Acid R Cuprous Chloride Saturated R Benzyl Alcohol R Cyclohexane N Boric Acid R Cyclohexanol N Brine R Destrose R Brine R Detergent (most) R Bromine (Liquid) N Diiethyl Ether) R Bromine (Water) LR Dimethyl Amine			N	Chromic Acid	10	R
Barium Hydroxide R Copper Nitrate R Barium Sulfate R Copper Sulfate R Barium Sulfide R Corn Syrup R Beer R Cottonseed Oil R Beet (Sugar Liquor) R Cresol N Benzaldehyde LR Cresylic Acid 50 R Benzene N Cupric Chloride Saturated R Benzolc Acid R Cuprous Chloride Saturated R Benzyl Alcohol R Cyclohexane N Bleach 12% Chlorine R Cyclohexanol N Boric Acid R Cyclohexanone N Brine R Detergent (most) R Brine R Detergent (most) R Bromine (Liquid) N Dietyl Ether (Ethyl Ether) R Bromine (Water) LR Dimethyl Amine N		80	R	Citric Acid	Saturated	R
Barium Hydroxide R Copper Nitrate R Barium Sulfate R Copper Sulfate R Barium Sulfide R Corn Syrup R Beer R Cottonseed Oil R Beet (Sugar Liquor) R Cresol N Benzaldehyde LR Cresylic Acid 50 R Benzene N Cupric Chloride Saturated R Benzolc Acid R Cuprous Chloride Saturated R Benzyl Alcohol R Cyclohexane N Bleach 12% Chlorine R Cyclohexanol N Boric Acid R Cyclohexanone N Brine R Detergent (most) R Brine R Detergent (most) R Bromine (Liquid) N Dietyl Ether (Ethyl Ether) R Bromine (Water) LR Dimethyl Amine N	Barium Chloride		R	Copper Fluoride		R
Barium Sulfate R Copper Sulfate R Sarium Sulfide R Corn Syrup R R Seer R Cottonseed Oil R Seet (Sugar Liquor) R Cresol N Senzaldehyde LR Cresylic Acid 50 R Senzaldehyde Saturated R Senzoic Acid R Cuprous Chloride Saturated R Senzyl Alcohol R Cyclohexane N Senzaldehyde R Cyclohexane N Senzaldehyde Saturated R Senzyl Alcohol R Cyclohexane N Senzic Acid R Cyclohexane N Senzic Acid R Cyclohexane N Senzyl Alcohol R Cyclohexane N Senzyl Alcohol R Cyclohexane N Senzyl Alcohol R Cyclohexanol N Senzyl Alcohol R Cyclohexanol R Cyclohexanol N Senzyl Alcohol R Cyclohexanol N Senzic Acid R Cyclohexanol N Senzic Acid R Cyclohexanol N Senzyl Alcohol R Cyclohexanone R Cyclohexanone R Cyclohexanone R Cyclohexanone R Senzyl Alcohol R Cyclohexanone R Cyclohexanone R Senzyl Alcohol R S	Barium Hydroxide		R			R
Barium Sulfide R Corn Syrup R Beer R Cottonseed Oil R Beet (Sugar Liquor) R Cresol N Benzaldehyde LR Cresylic Acid 50 R Benzene N Cupric Chloride Saturated R Benzoic Acid R Cuprous Chloride Saturated R Benzyl Alcohol R Cyclohexane N Bleach 12% Chlorine R Cyclohexane N Boric Acid R Cyclohexane N Brake Fluid LR Dextrose R Brine R Detergent (most) R Bromine (Liquid) N Diethyl Ether (Ethyl Ether) R Bromine (Water) N Dimethyl Amine	Barium Sulfate		R			R
BeerRCottonseed OilRBeet (Sugar Liquor)RCresolNBenzaldehydeLRCresylic Acid50RBenzeneNCupric ChlorideSaturatedRBenzoic AcidRCuprous ChlorideSaturatedRBenzyl AlcoholRCyclohexaneNBleach12% ChlorineRCyclohexanolNBoric AcidRCyclohexanoneNBrake FluidLRDextroseRBrineRDetergent (most)RBromic AcidRDiesel FuelRBromine (Liquid)NDiethyl Ether (Ethyl Ether)RBromine (Water)LRDimethyl AmineN						
Beet (Sugar Liquor)RCresolNBenzaldehydeLRCresylic Acid50RBenzeneNCupric ChlorideSaturatedRBenzoic AcidRCuprous ChlorideSaturatedRBenzyl AlcoholRCyclohexaneNBleach12% ChlorineRCyclohexanolNBoric AcidRCyclohexanoneNBrake FluidLRDextroseRBrineRDetergent (most)RBromic AcidRDiesel FuelRBromine (Liquid)NDiethyl Ether (Ethyl Ether)RBromine (Water)LRDimethyl AmineN				, ,		
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BenzeneNCupric ChlorideSaturatedRBenzoic AcidRCuprous ChlorideSaturatedRBenzyl AlcoholRCyclohexaneNBleach12% ChlorineRCyclohexanolNBoric AcidRCyclohexanoneNBrake FluidLRDextroseRBrineRDetergent (most)RBromic AcidRDiesel FuelRBromine (Liquid)NDiethyl Ether (Ethyl Ether)RBromine (Water)LRDimethyl AmineN					50	
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Boric Acid R Cyclohexanone N Brake Fluid LR Dextrose R Brine R Detergent (most) R Bromic Acid R Diesel Fuel R Bromine (Liquid) N Diethyl Ether (Ethyl Ether) R Bromine (Water) LR Dimethyl Amine N		12% Chlorine				
Brake Fluid LR Dextrose R Brine R Detergent (most) R Bromic Acid R Diesel Fuel R Bromine (Liquid) N Diethyl Ether (Ethyl Ether) R Bromine (Water) LR Dimethyl Amine N				<u>'</u>		
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Bromine (Liquid) N Diethyl Ether (Ethyl Ether) R Bromine (Water) LR Dimethyl Amine N						
Bromine (Water) LR Dimethyl Amine N						
				· · · · · · · · · · · · · · · · · · ·		
DISTRIBUTE LYGINGS I 75 I B I DISTRIBUTABLE I INC.	Bromine (Vapor)	25	R	Dioctyl Phthalate		N

Chemical Resistance of PVC Products at Room Temperature



Chemical	Concentration %*	Resistance	Chemical	Concentration %*	Resistance
Dioxane		N	Linseed Oil		R
Ethanol (Ethyl Alcohol) and Water	All	R	Lithium Bromide		R
Ethanol (Ethyl Alcohol)	Pure	R	Lubricating Oil		R
Ethyl Acetate		N	Magnesium Carbonate		R
Ethyl Chloride		N	Magnesium Chloride		R
Ethylene Chlorohydrin		N	Magnesium Hydroxide		R
Ethylene Dichloride		N	Magnesium Sulfate		R
Ethylene Glycol		R	Maleic Acid		R
Fatty Acids		R	Malic Acid		R
Ferric Acetate		R	Manganese Chloride		R
Ferric Chloride	Saturated	R	Manganese Sulfate		R
Ferric Hydroxide		R	Mercuric Chloride		R
Ferric Nitrate		R	Mercuric Nitrate		R
Ferric Sulfate		R	Mercuric Sulfate		R
Ferrous Chloride		R	Mercury		R
Ferrous Hydroxide		R	Methanol and Water	All	R
Ferrous Sulfate		R	Methanol (Methyl Alcohol)	Pure	R
Fluorine Gas		LR	Methyl Chloride		N
Fluorine Gas (wet)		R	Methyl Ethyl Ketone (MEK)		N
Fluoroboric Acid		R	Methylmethacrylate		R
Formaldehyde		LR	Methyl Sulfate		LR
Formic Acid		R	Methyl Sulfuric Acid		R
Freon 11, 12, 113, 114		LR	Methylamine		N
Fluosilicic Acid		R	Methylene Bromide		N
Fruit Juices and Pulp		R	Methylene Chloride		N
Gasoline		R	Methylene Chlorobromate		N
Glucose		R	Methylene lodide		N
Glycerine		R	Milk		R
Heptane		R	Mineral Oil		R
Hexane		N	Motor Oil		R
Hydrazine		N	Naphtha		R
Hydrobromic Acid	20	R	Naphthalene		N
Hydrochloric Acid	35	R	Nickel Chloride		R
Hydrofluoric Acid	70	LR	Nickel Nitrate		R
Hydrogen		R	Nickel Sulfate		R
Hydrogen Peroxide	50	R	Nitric Acid	60	R
Hydrogen Sulfide		R	Nitrobenzene		N
lodine		N	Nitroglycerine		N
Kerosene		R	Nitrous Oxide		R
Ketones		N	Oleic Acid	Saturated	R
Lactic Acid	20	R	Oxalic Acid		R
Laurel Chloride		R	Oxygen		R
Lead Acetate		R	Ozone		R
Lead Chloride		R	Palmitic Acid		R
Lead Nitrate		R	Paracetic Acid	40	LR
Lead Sulfate		R	Perchloric Acid	70	LR
Linoleic Acid		R	Phenol		N
Linoleic Oil		R	Phosphoric Acid	85	R

Chemical Resistance of PVC Products at Room Temperature



Chemical	Concentration %*	Resistance	Chemical	Concentration %*	Resistance
Phosphorous (Yellow)		R	Sodium Ferricyanide		R
Phosphorous Pentoxide		R	Sodium Ferrocyanide		R
Phosphorous Trichloride		N	Sodium Fluoride		R
Photographic Chemicals		R	Sodium Hydroxide	50%	R
Picric Acid		N	Sodium Hypochlorite	16% Chlorine	R
Plating Solutions		R	Sodium Nitrate		R
Potassium Bichromate		R	Sodium Nitrite		R
Potassium Bromate		R	Sodium Perchlorate		R
Potassium Bromide	Saturated	R	Sodium Peroxide		R
Potassium Chloride		R	Sodium Sulfate		R
Potassium Chlorate		R	Sodium Sulfide		R
Potassium Chromate		R	Sodium Sulfite		R
Potassium Cyanide		R	Sodium Thiosulfate		R
Potassium Dichromate		R	Stannic Chloride		R
Potassium Ferricyanide		R	Stannous Chloride		R
Potassium Fluoride		R	Stearic Acid		R
Potassium Hydroxide	50	R	Succinic Acid		R
Potassium Nitrate		R	Sugar	Saturated	R
Potassium Perborate		R	Sulfur Dioxide (Dry Gas)		R
Potassium Perchlorate		R	Sulfuric Acid	<80 (>80)	R (LR)
Potassium Permanganate	10	R	Sulfurous Acid		R
Potassium Persulfate	10	R	Tannic Acid		R
Potassium Sulfate		R	Tanning Liquors		R
Propane		R	Tartaric Acid		R
Propyl Alcohol (1Propanol)	100	R	Tetraethyl Lead		R
Propylene Dichloride	100	N	Tetrahydrofuran		N
Propylene Oxide		N	Tetrasodium Pyrophosphate		R
Pyridene		N	Thionyl Chloride		N
Pyrogallic Acid		R	Titanium Tetrachloride		R
Salad Oil		R	Toluene		N
Salicylic Acid		R	Trichloroacetic Acid		R
Selenic Acid		R	Trichloroethylene		N
Silicic Acid		R	Triethanolamine		R
Silver Cyanide		R	Triethylamine		N
Silver Nitrate		R	Trimethylamine		LR
Silver Sulfate		R	Trisodium Phosphate		R
Sodium Acetate		R	Tuepentine		LR
Sodium Benzoate		R	Urea		R
Sodium Bicarbonate		R	Vasilene		N
Sodium Bichromate		R	Vegetable Oils		R
Sodium Bisulfate		R	Vinegar		R
Sodium Bisulfite		R	Vinegar Vinyl Acetate		N N
			*		R
Sodium Carbonate		R	Water (Demineralized or Sea)		R
Sodium Chlorida		R	Wine or Whiskey		N N
Sodium Chloride		R	Xylene Zinc Chlorida		
Sodium Chlorite		N	Zinc Chloride		R
Sodium Cyanide		R	Zinc Nitrate		R
Sodium Dichromate		R	Zinc Sulfate		R

Entries indicate the following: R - resistant, LR - limited resistance, N- not resistant *concentration of aquesous solution except where noted

The chemical resistance information in this table is based on our research and experience and may be considered solely as a basis for recommendation, but not as a guarantee, unless specifically furnished as such by PALRAM.