

## Resistance table

The following list shows the chemical resistance of Loctite anaerobic products (cured by anaerobic reaction) to chemicals, gases and other common substances.

Resistance of cyanoacrylates, modified acrylics, silicones and urethanes is available upon request.

### Legend:

+ = Experience has shown that Loctite products are resistant

° = Preliminary tests or resistance tests are recommended

% = Loctite products are only resistant up to the given concentration

— = Loctite products are not recommended, or may be used only after exhaustive tests.

The following section lists common fluids used in industry and shows the relative suitability of anaerobic adhesives and sealants to perform when subjected to the listed fluid. Several factors can affect fluid resistance, therefore testing which simulates the fluid exposure conditions prior to implementation is always recommended.

### Liquids:

Abrasive lubricant	+
Abrasive slurry	+
Accumulator acid	10%
Acetaldehyde	+
Acetamide	+
Acetate solvents	+
Acetic acid	10%
Acetic ether	+
Acetone	+
Acetyl chloride	+
Acetyl salicylic acid	+
Acetylene (liquid)	+
Acidic alum earth	+
Acrylic acid	+

Acrylonitrile	+
Activated carbon	+
Activated silica	+
Active aluminium oxide	+
Aftershave	+
Albumin	+
Alcohol - allyl	+
Alcohol - amyl	+
Alcohol - butyl	+
Alcohol - ethyl	+
- furfur alcohol	+
- hexyl alcohol	+
- isopropyl alcohol	+
- methyl alcohol	+
- propyl alcohol	+
Alkalinesolution (alkaline salt water)	+
Alum	+
- chromic alum	+
- potash alum	+
- sodium alum	+
Alum earth	+
Aluminium acetate	+
Aluminium bicarbonate	+
Aluminium bifluoride	+
Aluminium chloride	+
Aluminium hydroxide, alum earth	+
Aluminium potassium	+
Aluminium sulphate	+
Amine	+
Ammonia anhydride	-
Ammonium bisulphite	+
Ammonium borate	+
Ammonium bromide	+
Ammonium carbonate	+
Ammonium chloride, sal ammoniac	+
Ammonium chromate	+
Ammonium copper formate	+
Ammonium formate	+
Ammonium hyposulphite	+
Ammonium iodide	+
Ammonium molybdate	+
Ammonium oxalate	+

Ammonium persulphate +  
Ammonium phosphate +

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Ammonium picrate +  
Ammonium silicofluoride +  
Ammonium sulphate +  
Ammonium sulphide +  
Ammonium thiocyanate +  
- fluoride of ammonium +  
Amyl acetate +  
Amyl chloride +  
Amylamine +  
Aniline +  
Aniline dyes +  
Animal blood +  
Animal fat +  
Antibiotics +  
Antichlorine solution +  
Antimony salt +  
Antimony trioxide +  
Antioxidant agents +  
Apple juice, apple wine +  
Argon +  
Armeen +  
Arochlorine +  
Aromatic gasoline +  
Aromatic solvents +  
Arsenic acid +  
Asbestos mass +  
Ash slurry +  
Asphalt emulsion +  
Aureomycine +  
Aurous cyanide +  
Aviation fuel +  
Bacitracine +  
Bacterial media +  
Barium +  
Barium acetate +  
Barium carbonate +  
Barium chloride +

Barium hydroxide	10%
Barium sulphate	+
Battery acid	10%
Bauxite (see aluminium)	+
Beef extract	+
Beef stock	+
Beer	+
Beet juice or pulp	+
Bentonite (emulsifying agent)	+
Benzaldehyde, bitter almond oil	+
Benzene acid	+
Benzene hexachloride	+
Benzene hydrochloride	+
Benzine	+
Benzol, benzene	+
Benzotriacide	+
Beryllium hydrogen sulphate	+
Bicarbonate (liquid)	+
Bilge medium	+
Bitter almond oil	+
Bleached lime	+
Bleaching bath	°
Blood - animal	+
Blood - human	+
Blood substitute	+
Borax - liquid	+
Bordeaux mixture	+
Boric acid	+
Brake fluid	+
Brandy	+
Brine	
- alk.	+
- electrolytical	+
- for pickling	+
Bromine	-
Bromine and cadmium cyanide	+
Bromine solution	°
Bronze cyanide	+
Butadiene	+
Buttermilk	+
Butyl acetate	+

Butyl alcohol	+
Butyl amine	+
Butyl cellosolve	+
Butyl chloride	+
Butyl ether - dry	+
Butyl lactate	+
Butyraldehyde	+
Butyric acid	+
Butyric acid	10%
Cadmium sulphate	+
Cadmium	
- plating solution	+
Calcium acetate	+
Calcium bisulphate	+
Calcium carbonate	+
Calcium chlorate	+
Calcium chloride	+
Calcium chloride	
salt solution	+
Calcium citrate	+
Calcium ferrocyanide	+
Calcium formate	+
Calcium hydroxide	+
Calcium hypochlorite	+
Calcium lactate	+
Calcium nitrate	+
Calcium phosphate	+
Calcium silicate	+
Calcium sulphamate	+
Calcium sulphate	+
Calcium sulphite	+
Camphor	+
Cane sugar - liquid	+
Cane sugar - refined	+
Carbitol	+
Carbon disulphite	+
Carbon sugar	+
Carbowax	+
Carboxyl methyl cellulose	+

Carnauba wax	+
Casein	+
Casein water paint	+
Cashew oil	+
Castor oil	+
Caustic ammonia, ammonium hydroxide	o
Celane	+
Cellosolve	+
Cellulose acetate	+
Cellulose pulp	+
Cellulose xanthate	+
Cement slurry	+
Cement, dry	+
Cement, liquid	+
Cereal oil	+
Cereal pulp	+
Chalk	+
Chemical pulp	+
Chestnut mordant	+
Chloramine	+
Chloric alcohol	+
Chlorinated brine	+
Chlorinated kerosine	+
Chlorinated paper pulp	+
Chlorinated solvents	+
Chlorinated water	+
Chlorinated wax	+
Chlorine - dry	-
Chlorine - liquid	-
Chlorine bleach	-
Chlorine dioxide	o
Chlorocarbon	+
Chloroform	+
Chloroform - dry	+
Chlorophyll	+
Chlorosulphonic acid	-
Chocolate syrup	+
Chrome bath	10%
Chromic acid	10%
Chromic acid 50% cold	o
Chromic acid 50% hot 40° - 80°C	-

Chromic acid cleanser	10%
Chromic sulphate	+
Chromium - liquid	10%
Chromium acetate	+
Chromium chloride	+
Citric acid solution (cold)	°
Citric acid solution (hot)	°
Citrous juice	+
Citrus - concentrated	+
Clay	+
Coaltar	+
Coating paint	+
Cobalt, acidic	+
Cobaltous chloride	+
Coconut oil	+
Cod liver oil	+
Coffee - concentrated	+
Coke dust	+
Cola syrup	+
Cold brine	+
Common resin in alcohol	+
Concentrated nitric acid	-
Copper chloride	+
Copper chloride gasoline	+
Copper cyanide	+
Copper naphthenate	+
Copper pickle	+
Copper plating - acidic	+
Copper plating - alk.	+
Copper sulphate	+
Coppering process (acid)	+
Coppering process (caustic solution)	+
Cottonseed oil	+
Creosote	+
Creosote oil	+
Creosotic acid	+
Cuprammonium format	+
Cyanide solution	+
Cyanuric chloride	+

Cyclohexane	+
Cylinder oil	+
DDT	+
Detergent	+
Developer liquid	+
Dextran	+
Dextrine, starch gum	+
Diacetone alcohol	+
Diamyl amine	+
Diatom deposits, diatom earth	+
Diazo acetate	+
Dibromic ethyl	+
Dibutyl phthalate	+
Dichlorethyl ether	+
Dichlorophenol	+
Dicyandiamide	+
Dielectric liquid	+
Diethyl amine	+
Diethyl ether	+
Diethyl glycol	+
Diethyl sulphate	+
Diglycol acid	+
Dimethyl formamide	+
Dimethyl sulphine	+
Dioxan - dry	+
Dioxidene	+
Dipentene pinene	+
Diphenyl	+
Dister lubricant	+
Distilled water	+
Distillery mash	+
Distillery waste water	+
Drinking water	+
Dyeing liquid	+
Elaxal bath	+
Emulsified oils	+
Enamel	+
Enamel frit	+
Enzyme solution	+
Epichloric hydrine	+
Ergosterol solution	+
Ethyl acetate, acetic ether	+



Ethyl alcohol, spirit of wine	+
Ethyl amine	+
Ethyl cellosolve	+
Ethyl format	+
Ethyl gasoline	+
Ethyl silicate	+
Ethylene diamine	+
Ethylene dichloride	+
Ethylene glycol	+
Excrement, excreta	+
Face cream	+
Fatty acid amine	+
Fatty acids	+
Fatty alcohol	+
Ferment	+
Ferric chloride	+
Ferric floc	+
Ferric sulphate (10%)	+
Ferric sulphate	
- saturated	+
Ferrous nitrate	+
Fertilizer solution	+
Fibre bagasse	+
Fine dust - dry	+
Flotation concentrates	+
Fluorides	+
Fluorine gases and liquids	+
Fluorolube	+
Flux	+
Foam generator	+
Foam latex	+
Foamite	+
Formaldehyde - cold	+
Formaldehyde - hot	°
Formic acid (cold)	+
Formic acid (hot)	°
Formic acid aldehyde (cold)	+
Formic acid aldehyde (hot)	°
Freon	(see gases)

Fruit juices	+
Fuel oil	+
Fuming nitric acid	-
Fuming sulphuric acid	-
Furfural	+
Gallic acid	5%
Gallium sulphate	+
Gamma globuline	+
Gelatine (edible gelatine)	+
Gelatine emulsion	+
Glucol acid	+
Glucone acid	+
Glucose, starch sugar	+
Glue emulsion	+
Glutamic acid	+
Gluten, tirtizine	+
Glycerine C.P.	
- USP alkaline solution	+
Glycine hypochloride	+
Glycol acid	+
Glycol amine	+
Glyoxal	+
Glycocoll, glycine	+
Gold monochloride	+
Grain pulp	+
Grain sugar	+
Granodine	+
Grape juice	+
Grape pulp	+
Grapefruit juice	+
Grease lubrication	+
Green potassium soap	+
Grinding coolant	+
Ground siliceous earth	+
GRS latex	+
Hair tonic	+
Halo wax	+
Halogen tin plating	+
Halon solution	+
Heptane	+
Herb juice	+
Hexachlorobenzene	+

Hexadiene	+
Hexane	+
Hexaphosphate	+
Hexyl alcohol	+
HtH	+

Hydrazine	+
Hydrazine hydrate	+
Hydrochloric acid	o
Hydrocyanic acid	10%
Hydrofluoric acid	-
Hydrogen	+
Hydrogen bromide	10%
Hydrogen fluoride gas	o
Hydrogen peroxide	+
Hydrogen peroxide concentrate	o
Hydroponic solution	+
Hydroquinone	+
Hydrosilicofluoric acid	+
Hydroxypropionic acid	+
Hypochloride	+
Ice cream	+
Infusorial earth	+
Ink	+
Insecticide	+
Iodine benzene	+
Iodine in alcohol	+
Iodine solutions	+
Iodine	
- potassium iodide	+
Ion exchange liquid	+
Iron ore oxide	+
Iron ore phytate	+
Iron ore taconite	+
Iron vitriol	+
Isobutyl alcohol	+
Isobutyraldehyde	+
Isocyanate resin	+
Isooctane	+
Isopropyl acetate	+

Isopropyl alcohol	+
Isopropyl ether	+
Itaconic acid	+
Jet propulsion fuel	+
Kaolin	+
Kelp sludge	+
Kernel oil	+
Kerosine	+
Ketone	+
Lactic acid	+
Lactose	+
Lapping abrasive	+
Lard	+
Latex rubber	+
Latex, natural	+
Latex, synthetic	+
Laundry bleach	+
Laundry blue	+
Laundry water	+
Lead arsenate	+
Lead fluoride	+
Lead oxide	+
Lead sulphate	+
Lecithine	+
Lemon juice	+
Lignine extract	+
Linseed oil	+
Lithium chloride	+
Liver extract	+
LOX (liquid O2)	-
Magnesite	+
Magnesium bisulphate	+
Magnesium carbonate	+
Magnesium chloride	+
Magnesium hydroxide	+
Magnesium magma	+
Magnesium sulphate	+
Maize kernels	+
Maize oil	+
Maize syrup	+
Maize water	+
Maleic acid	+

Maleic anhydride	+
Malt residuum	+
Malt syrup	+
Maltose, malt sugar	+
Manganese chloride	+
Manganese sulphate	+
Mannite solution	+
Mayonnaise	+
Melamine resin	+

Melted sugar	+
Menthol	+
Mercaptan, thio-alcohol	+
Mercuric chloride	+
Mercuric nitrate	+
Mercury	+
Mercury - dry	+
Methane	+
Methanol, methyl alcohol	+
Methyl acetate	+
Methyl bromide	+
Methyl carbitol	+
Methyl cellosolve	+
Methyl chloride (not adhesive)	°
Methyl ethyl ketone	+
Methyl isobutyl ketone, isopropyl acetone	+
Methyl lactate	+
Methyl orange	+
Methylamine	+
Methylene dichloride (not adhesive)	+
Milk	+
Milk chocolate	+
Milk of magnesium	+
Mineral oil, white	+
Molasses, edible	+
Molasses, raw	+
Molten asphalt	+
Molten ceramic	+
Molten paraffin	+

Molten phosphor	+
Monochloroacetic acid	+
Monochlorobenzene	+
Monochrome solution (alk.)	+
Morphalin	+
Mustard	+
Naphtha, paraffin, rock oil	+
Naphthalene	+
Neoprene emulsion	+
Neoprene latex	+
Niacin	10%
Nickel	+
Nickel acetate	+
Nickel ammonium sulphate	+
Nickel fluoborate	+
Nickel plating	+
Nickel sulphate	+
Nitrane solution	+
Nitrating acid	-
Nitric acid	10%
Nitric acid 20%	°
Nitric anhydride	-
Nitroacrylic sulphonic acid	+
Nitrobenzene, dry	+
Nitrocellulose	+
Nitrofurane	+
Nitroguanidine	+
Nitrohydrochloric acid	-
Nitroparaffin, dry	+
Nitrosyl chloride	+
Norite carbon	+
Nuchar	+
Nutrient fat	+
Oakite	-
Oils:	
animal oils	+
castor oil	+
coconut oil	+
cod liver oil	+
creosotic oil	+
emulsified oils	+
fish oil	+

fuel oil	+
grain oil	+
linseed oil	+
lubricating oil	+
mineral oil	+
olive oil	+

palm oil	+
peanut oil	+
soluble oils	+
soybean oil, raw	+
tall oil	+
vegetable oils	+
Oleic acid cold	+
Oleic acid hot	+
Orange juice	+
Ore pulp	+
organic dyes	+
Oxalic acid	+
Ozone, liquid	-
Paint - for vehicles	+
Paint - linseed based	+
Paint - water-soluble	+
Palm oil	+
Palmitic acid	+
Paper mill waste	+
Paper pulp	
- bleached	+
- chlorinated	+
- washed and bleached	+
- with amum	+
- with dye	+
Paper rags	+
Paradichlorobenzene	+
Paraffin oilkerosine	+
Paraformaldehyde	+
Peanut oil	+
Pectine	+
Penicillin	+
Penta-erythrite solution	+

Pentachloroethane	+
Perchloric acid	10%
Perchloromethyl mercaptan	+
Perfume	+
Permanganic acid	-
Peroxide bleach	+
Persulphuric acid	10%
Petroleum ether	+
Petroleum spirit alkaline solution	+
Petroleum spirit cuprous chloride	+
Petroleum spirit acid bath	+
Petroleum spirit, acidic	+
Petroleum spirit, white	+
Pharmaceutical substances	+
Phenol	+
Phenolic cement	+
Phenolic resins	+
Phenolsulphonic acid	+
Phenylbetanaphthyl	o
Phenylic acid	10%
Phloroglucinol	+
Phosphate ester	+
Phosphor sand	+
Phosphoric acid	
85% hot	-
85% cold	o
50% hot	o
50% cold	o
10% hot	o
10% cold	+
Phosphotungstic acid	+
Phthalic acid	+
Picric acid solution	+
Pine oil	+
Pineapple juice	+
Pit water	+
Plasma thinners	+
Plating substances:	
- brass cyanide	+
- bromine and	
- cadmium cyanide	+
- bronze cyanide	+



- cobalt (acidic)	+
- copper (acidic, caustic)	+
- gold cyanide	+
- iron (acidic)	+
- lead fluoride	+
- nickel	+
- platinum	+
- silver cyanide	+
- tin (acidic)	+
- zinc (acidic)	+
- zinc (caustic)	+
Polio vaccine	+
Polyacrylnitrile sludge	+
Polyphosphoric acid	10%
Polysulphide liqueur	+
Polyvinyl chloride slurry	+
Porcelain frit	+
Potash, potassium carbonate	+
Potassium acetate	+
Potassium alum	+
Potassium bichromate	+
Potassium bromide	+
Potassium carbonate	+
Potassium chloride solution	+
Potassium chromate	+
Potassium cyanide solution	+
Potassium hydroxide	-
Potassium iodide	+
Potassium nitrate	+
Potassium permanganate	+
Potassium perchlorate	+
Potassium persulphate	+
Potassium phosphate	+
Potassium silicate	+
Potassium sulphate, sulphuric potassium	+
Potassium xanthate	+
Pressboard waste	+

Propionic acid	+
Propyl alcohol	+
Propyl bromide	+
Proteins	+
Pyranol	+
Pyridine	+
Pyrogallic acid	+
Pyrole	+
Pyromellitic acid	+
Quebracho tannin	+
Quinone	+
Rare earth salts	+
Rayon viscose	+
Riboflavin	+
River water	+
Roccal	+
Rubber paste	+
Safrol	+
Sal ammoniac	+
Salad dressing	+
Salad oil	+
Salicylic acid	+
Saliferous soil physiological	+
Salt water	+
Sebum, tallow	+
Selenium chloride	+
Sewage, excreta	+
Shellac	+
Shower water	+
Silica gel	+
Silicon liquids	+
Silicon tetrachloride	+
Silver cyanide	+
Silver iodide	+
Silver nitrate	+
Slaked lime	+
Slate (up to 400 mesh)	+
Sloe gin	+
Soapsuds (stearates)	+
Soda pulp	+
Sodium	
- aluminate	+

- acetate	+
- benzene sulphonate	+
- bicarbonate	+
- bichromate	+
- bisulphite	+
- bromide	+
- carbonate	+
- chlorite	+
- chlorate	+
- chloride	+
- cyanide	+
- dithionite	+
- ferrocyanide	+
- fluoride	+
- format	+
- fluate	+
- glutamate	+
- hydrosulphide	+
- hydrosulphite	+
- hydrochloride	+
- hydroxide	
- 20% cold	+
- 20% hot	°
- 50% cold	°
- 50% hot	-
- 70% cold	°
- 70% hot	-
- hypochloride	+
- lignosulphonate	+
- metasilicate	+
- monophosphate	+
- nitrate	+
- nitrite - nitrate	+
- perborate	+
- peroxide	-
- persulphate	+
- potassium chloride	+
- sulphide	+
- sulphite	+

- stannate	
- (preparing salt)	+
- triphosphate	+
- xanthate	+
Solvent naphtha	+
Sorbic acid	+
Sorbit	+
Soybean oil	+
Spirit of wine	+
Starch	+
Starch basis	+
Stearic acid	+
Sterilizing steam	+
Streptomycine pulp	+
Styrene	+
Styrene-butadienne latex	+
Sulpha-sulpho- anhydride	+
Sulphamic acid	+
Sulphate	+
Sulphate hiazole	+
Sulphite liquor	+
Sulphocyanic acid	+
Sulphones	+
Sulphonic acids	10%
Sulphonyl chloride	+
Sulphur slurry solution in carbon bisulphide	+
Sulphuric acid	o
Sulphuric acid	
0 - 7%	o
7 - 40%	o
40 - 75%	o
75 - 95%	-
95 - 100%	-
Sulphuric iron oxide (10%)	+
Sulphurized oils	+
Sulphuryl chloride	+
Synthetic latex	+
Syrup	+
Taconite	+
Tall oil	+
Tamine	+

Tannin, tannic acid (cold)	°
Tartaric acid, dioxide succinic acid	+
Tergitole	+
Tetrachloroethylene (dry)	+
Tetraethyl lead	+
Tetrahydrofurane	+
Tetranitromethane	+
Textile dye	+
Textile finishing oils	+
Textile printing oil	+
Thiocarbamide	+
Thioglycolic acid	+
Thionyl chloride	+
Thiophosphoryl chloride	+
Thorium nitrate	+
Thymol, thyme camphor	+
Tin (acidic)	+
Tin (alk.)	+
Tin solder	+
Titanium oxide mass	+
Titanium oxide sulphate	+
Titanium tetrachloride	+
Tobacco wash solution	+
Toluene	+
Toluol sulphonic acid	°
Toluol, methylbenzene	+
Tomato juice	+
Tomato ketchup	+
Toothpaste	+
Transile oil	+
Trichloroacetic acid	+
Trichloroethane	+
Trichloroethylene	+
Triethanolamin	+
Triglycol	+
Triorthocresylphosphate	+
Trioxane	+
Tungstic acid anhydride	+
Turpentine	+

Turpentine oil	+
Ucon lubricating oil	+
Udylithe solution	+
Undecylene acid	+
Uranium salts	+
Uranyl nitrate	+
Uranyl sulphate	+
Vacuum oil	+
Vanadium pentoxide	+
Vanilla extract	+
Varnish	+
Varnish thinners	+
Varsole	+
Vaseline	+
Versen	+
Vinegar	+
Vinyl acetate	+
Vinyl chloride latex emulsion	+
Vinylha	+
Vitamins in oil	+
Washing soda	+
Water (acidic),	
- under pH7*	+
- pH7 to pH8	+
- (alk.) over pH8*	+
- boiling	o
- carbonated	+
- chlorinated,	
- up to 100 ppm	+
- demineralized	+
- desalting	+
- distilled	+
- filtered	+
- sandy	+
- soft	+
- sterilized	+
Wax	+
Weisberg sulphate plating	+
Wheat adhesive	+
Whisky	+

Whisky residuum	+
White spirit	+
Wine	+
Wort, malt extract	+
Xylene, dimethyl-benzene	+
Zeolite water	+
Zinc alk. (cyanide)	+
Zinc bromide	+
Zinc chloride	+
Zinc cyanide (alk.)	+
Zinc galvanizing	+
Zinc oxide	+
Zinc oxide in water	+
Zinc solder	+
Zinc sulphate	+
Zincolate	+
Zircon nitrate	+
Zircon sulphate	+

Note: for concentrated acid and alkaline solutions please refer to the individual chemical as listed in this section.

## Gases:

Acetylene	+
Acidic vapours	+
Alk. vapour	+
Amine	+
Ammonia, sal ammoniac	+
Butadiene gas - liquid	+
Butylene gas - liquid	+
Byproduct gas - liquid	+
Carbon bisulphide gas	+
Carbon dioxide	+
Carbon monoxide	+
Chloride dry	+
Chlorine gas - dry	-
Chlorine gas- liquid	-
Coke oven gas - cold	+
Coke oven gas - hot	o
Cyanogen chloride	+
Cyanogen gas	+

Ethane	+
Ether	+
Ethylene	+
Ethylene oxide	+
Factory gases	+
Freon (11-12-21-22)	o
Furnace gas cold	+
Furnace gas hot	o
Generator gas 50 psi	+
Helium	+
Hydrocyanic acid	10%
Hydrogen chloride	+
Hydrogen cold	+
Hydrogen sulphide wet and dry	+
Isobutane	+
Methane, fire damp	+
Methyl chloride, chloromethane	+
Natural gas, dry	+
Nitrogen	+
Oxygen	-
Oxygen 150 psi	-
Ozone	-
Propane	+
Propylene	+
Sulphur dioxide	+
Sulphur dioxide - dry	+
Sulphur trioxide - dry	+
Sulphur trioxide gas	-
Sulphuric acid vapour	+
Titanium	+

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