Seal Material Selection Table (For reference)

For seal parts in the Cupla (the important parts that prevent leaking to the outside), it is important to select the most appropriate seal material to suit the property and temperature of the fluid. It is so important that wrong selection may not only completely malfunction the Cupla but also cause an unexpected accident.

*When the fluid in question is not listed in "Seal Material Selection Table (For reference)," the seal material that you select should be tested under actual environment. Even if the fluid is stated in the following list, the test could be required in some cases.

	Fluids	Seal Material					
		Nitrile rubber	Chloroprene rubber	Fluoro rubber	Ethylene-propylene rubber	Perfluoroelastomer	Silicon rubber
A	Acetaldehyde	—	—	—	○	◎	—
	Acetic acid	○	◎	◎	◎		◎
	Acetic anhydride	—	○	—	○	◎	○
	Acetone	—	—	—	△	◎	—
	Acetonitrile	—	—	—	◎		—
	Acetophenone	—	—	—	◎	◎	—
	Acetyl chloride	—	—	◎	—		◎
	Acetylacetone	—	—	—	◎	◎	—
	Acetylene	◎	○	◎	◎		△
	Air (50˚C)	◎	◎	◎	◎		◎
	Aluminium bromide (65˚C)	◎	◎	◎	◎		○
	Aluminium chloride (65˚C)	◎	◎	◎	◎		◎
	Aluminium nitrate (65˚C)	◎	○	—	◎		○
	Aluminium sulfate (65˚C)	◎	◎	◎	◎		◎
	Amine	—	○	—	○		—
	Ammonia (65˚C)	—	○	—	○		◎
	Ammonia (anhydrous)	○	◎	—	◎		○
	Ammonia (cool)	◎	◎	—	◎		◎
	Ammonia gas	◎	◎	—	◎		◎
	Ammonium carbonate	—	◎	—	◎		—
	Ammonium chloride	◎	◎	—	◎		—
	Ammonium hydroxide	—	◎	○	◎		◎
	Ammonium nitrate (65˚C)	◎	○	—	◎		○
	Ammonium phosphate (65˚C)	◎	◎	—	◎		◎
	Ammonium sulfate (65˚C)	◎	◎	—	◎		—
	Ammonium sulfite	—	—	—	◎		—
	Ammonium thiosulfate	○	◎	◎	◎		◎
	Amyl acetate	—	—	—	△		—
	Amyl alcohol	○	○	○	◎		△
	Aniline	—	—	△	○	◎	—
	Animal oil	◎	○	◎	○		○
	Arsenic trichloride	—	—	—	—		—
	Asphalt	○	○	◎	—		○
B	Barium chloride	◎	◎	◎	◎		◎
	Barium hydroxide (65˚C)	◎	◎	◎	◎		◎
	Barium nitrate (65˚C)	—	—	◎	—		—
	Barium sulfate (65˚C)	◎	◎	—	—		◎
	Barium sulfide	◎	◎	◎	◎		◎
	Beer	△	○	◎	◎		◎
	Benzaldehyde	—	—	—	◎		—
	Benzene	—	—	◎	—		—
	Benzyl alcohol (65˚C)	—	◎	◎	○		—
	Benzyl chloride	—	—	◎	—		—
	Brake oil	—	—	○	◎		—
	Bromine	—	—	◎	—		—
	Bromine water	—	—	◎	—		—
	Butadiene	—	○	○	△		—
	Butane	○	○	◎	—		—
	Butane (2.2-, 3-dimethyl)	◎	○	◎	—		—
	Butane (liquid)	◎	○	◎	—		—
	Butanol (Butyl alcohol)	◎	◎	◎	○		○
	Butter and butter oil	◎	—	◎	○		○

	Fluids	Seal Material					
		Nitrile rubber	Chloroprene rubber	Fluoro rubber	Ethylene-propylene rubber	Perfluoroelastomer	Silicon rubber
B	Butyl acetate	—	—	—	○		—
	Butyl stearate	○	—	◎	—		—
	Butylene	○	△	◎	—		—
	Butyraldehyde	△	—	—	○		△
C	Cadmium cyanide	◎	◎	◎	◎		◎
	Calcium acetate	○	○	—	◎		—
	Calcium acetate (65˚C)	○	○	—	◎		—
	Calcium carbide	—	—	—	—		—
	Calcium carbonate	—	—	—	—		—
	Calcium hydroxide (65˚C)	◎	◎	◎	◎		—
	Calcium nitrate (65˚C)	◎	◎	◎	◎		◎
	Calcium perchlorate	—	—	—	—		—
	Calcium sulfate	—	—	—	—		—
	Calcium sulfate (65˚C)	—	—	—	—		—
	Calcium sulfite	—	—	◎	—		—
	Carbitol	○	○	○	○		○
	Carbon dioxide gas (65˚C)	◎	○	○	○		○
	Carbon disulfide	—	—	◎	—		—
	Carbon monoxide (65˚C)	◎	○	◎	◎		◎
	Carbon tetrachloride	○	—	◎	—	◎	—
	Castor oil	◎	◎	◎	○		◎
	Chlorine (liquid)	—	—	—	—		—
	Chlorine gas	—	—	◎	—		—
	Chlorine water	△	—	◎	○		—
	Chloroacetone	—	—	—	◎		—
	Chlorobenzene	—	—	◎	—		—
	Chloroform	—	—	◎	—	◎	—
	Chlorophenol	—	—	◎	—		—
	Coconut oil	◎	—	◎	◎		—
	Cod liver oil	—	—	—	—		—
	Coffee	◎	—	—	—		—
	Copper chloride (65˚C)	◎	○	◎	◎		—
	Copper cyanide	◎	◎	◎	◎		◎
	Copper sulfate	◎	◎	◎	◎		◎
	Corn oil	◎	○	◎	△		◎
	Cotton seed oil	◎	○	◎	△		△
	Cresol (50˚C)	—	—	◎	—		—
	Crude oil	○	—	◎	—		—
D	Diacetone alcohol	—	◎	—	◎	◎	—
	Dibenzyl ether	—	—	—	○		—
	Dichlorophenol	—	—	◎	—		—
	Diesel oil	◎	△	◎	—		—
	Diethanolamine	○	○	—	○		○
	Diethylene glycol	◎	◎	◎	◎		○
E	Ethanol	◎	◎	◎	◎		◎
	Ethyl acetate	—	—	—	○		○
	Ethyl alcohol	◎	◎	◎	◎	◎	○
	Ethyl benzene	—	—	◎	—	◎	—
	Ethyl cellulose	○	○	—	○		○
	Ethyl chloride	◎	○	◎	◎		—
	Ethylene glycol	◎	◎	◎	◎	◎	○
	Ethylene trichloride	△	—	◎	—		—