

How to read the selection tables

- ⊙ Practically no harm, and can be used (Excellent)
- Some harm may be inevitable but can be used under restrictions (Good)
- △ Should be avoided if at all possible (Not recommended)
- Should not be used (Unsuitable)

Note:

When selecting the seal material, please consider the following suggestions carefully:

1. If there is no comment in the column of the fluid name, the condition of the fluid is under saturation at room temperature.
2. Please check with us for applications at a high fluid temperature or with different fluid concentrations.
3. For applications related to foods, please order separately specifying the detailed applications.

	Fluids	Seal Material						
		Nitrile rubber	Chloroprene rubber	Fluoro rubber	Ethylene-propylene rubber	Perfluoroelastomer	Silicon rubber	
F	Fish oil	⊙	—	⊙	—	—	⊙	
	Fluorine (dry)	—	—	—	—	—	—	
	Formaldehyde	○	⊙	—	—	—	—	
	Freon 11	⊙	—	○	—	—	—	
	Freon 12	⊙	⊙	⊙	○	—	—	
	Freon 22	—	⊙	—	⊙	—	—	
	Fruits	—	—	—	—	—	—	
	Fuel oil	⊙	○	⊙	—	—	—	
	Furfural	—	—	—	○	⊙	—	
	G	Gasoline	⊙	—	⊙	—	—	—
Gelatin		⊙	⊙	⊙	⊙	—	⊙	
Glucose		⊙	⊙	⊙	⊙	—	⊙	
Glycerine (65°C)		⊙	⊙	⊙	⊙	—	⊙	
Glycol		⊙	⊙	⊙	—	—	⊙	
Grease (65°C)		⊙	⊙	⊙	—	—	⊙	
H		Helium	⊙	⊙	⊙	⊙	—	⊙
	Heptane	—	—	—	—	—	—	
	Hexane	—	—	—	—	⊙	—	
	Hydraulic fluid (oil base)	⊙	△	⊙	—	—	△	
	Hydraulic fluid (water base)	⊙	△	⊙	△	—	△	
	Hydrogen	⊙	⊙	⊙	⊙	—	△	
	Hydrogen bromide	⊙	—	—	—	—	—	
	Hydrogen peroxide (30%)	○	○	○	○	—	⊙	
	I	Iron chloride	⊙	⊙	⊙	⊙	—	○
Iron nitrate (65°C)		⊙	⊙	⊙	⊙	—	○	
Iron sulfate (10%)		⊙	⊙	—	—	—	○	
Iron sulfite (100%)		⊙	—	—	—	—	—	
Isoamyl alcohol		—	—	—	—	—	—	
Isooctane		⊙	○	⊙	—	⊙	—	
Isopropyl acetate		—	—	—	○	—	—	
Isopropyl alcohol		○	○	⊙	⊙	—	⊙	
Isopropyl ether		○	△	—	—	—	—	
K		Kerosene	⊙	○	⊙	—	—	—
	L	Lard and lard oil	⊙	—	—	—	—	—
		Latex	—	—	—	—	—	—
		Liquefied petroleum gas (LPG)	⊙	○	⊙	—	—	△
		Liquid glass (Sodium silicate)	—	—	—	—	—	—
		Liquors (beet)	⊙	⊙	⊙	⊙	—	⊙
		Liquors (sucrose)	⊙	⊙	⊙	⊙	—	⊙
		Lubricating oil	⊙	△	⊙	—	—	○
M		Magnesium chloride (65°C)	⊙	⊙	⊙	⊙	—	⊙
	Magnesium hydroxide (65°C)	○	○	⊙	⊙	—	—	
	Magnesium nitrate	⊙	—	—	—	—	—	
	Magnesium sulfate (65°C)	⊙	⊙	⊙	⊙	—	⊙	
	Maleic anhydride	—	—	⊙	—	—	—	
	Mercury	⊙	⊙	⊙	⊙	—	—	
	Methanol	⊙	⊙	—	⊙	—	⊙	
	Methyl bromide	○	—	⊙	—	—	—	
	Methyl butyl ketone	—	—	—	⊙	—	—	
	Methyl propyl ketone	—	—	—	○	—	—	
	Methyl chloride	—	—	⊙	△	—	—	
	Methyl ethyl ketone	—	—	—	⊙	⊙	—	

	Fluids	Seal Material						
		Nitrile rubber	Chloroprene rubber	Fluoro rubber	Ethylene-propylene rubber	Perfluoroelastomer	Silicon rubber	
M	Methyl salicylate	—	—	—	○	—	—	
	Methylene bromide	—	—	○	—	—	—	
	Methylene chloride	—	—	⊙	△	⊙	—	
	Milk	⊙	⊙	⊙	⊙	—	⊙	
	Mineral oil	⊙	△	⊙	—	—	△	
	Molasses	—	—	—	—	—	—	
	Monobromobenzene	—	—	⊙	—	—	—	
	Monochlorobenzene	—	—	—	—	—	—	
	Monoethanolamine	—	—	—	○	—	○	
	N	Naphtha	○	—	⊙	—	—	—
		Naphthalene	—	—	⊙	—	—	—
		Naphthenic oil	⊙	—	⊙	—	—	—
		Nickel acetate	○	○	—	⊙	—	—
Nickel acetate (65°C)		—	—	—	⊙	—	—	
Nickel ammonium sulfate		—	—	—	—	—	—	
Nickel chloride		⊙	⊙	⊙	⊙	—	⊙	
Nickel nitrate		—	—	—	—	—	—	
Nickel sulfate		—	—	—	—	—	—	
Nitrobenzene		—	—	○	—	⊙	—	
Nitrogen (gas)		⊙	⊙	⊙	⊙	—	⊙	
Normal heptane		⊙	○	⊙	—	—	—	
Normal pentane		⊙	⊙	⊙	—	—	—	
O		Octyl alcohol	○	○	⊙	⊙	—	○
	Oleic acid (65°C)	△	—	○	—	—	—	
	Olive oil	⊙	○	⊙	○	—	—	
	Ortho-dichlorobenzene	—	—	⊙	—	—	—	
	Oxygen (gas)	○	⊙	⊙	⊙	—	⊙	
	Ozone	—	△	⊙	⊙	—	⊙	
	P	Palm oil	—	—	—	—	—	—
Paraffin oil		⊙	—	⊙	—	—	—	
Peanut oil		⊙	○	⊙	△	—	⊙	
Pentane (2-,3-,4-methyl)		—	—	—	—	—	—	
Phenol		—	—	⊙	—	—	—	
Phosphorous oxychloride (dry)		○	○	⊙	⊙	—	○	
Phosphorous oxychloride (wet)		○	○	⊙	⊙	—	○	
Phosphorus		—	—	—	—	—	—	
Phthalic anhydride		—	—	—	—	—	—	
Pine oil		○	—	⊙	—	—	—	
Potassium acetate (65°C)		○	○	—	⊙	—	—	
Potassium bichromate		⊙	⊙	⊙	⊙	—	⊙	
Potassium carbonate		—	—	—	—	—	—	
Potassium cyanide		⊙	⊙	⊙	⊙	—	⊙	
Potassium hydroxide (65°C)		○	⊙	—	⊙	—	△	
Potassium nitrate (65°C)		⊙	⊙	⊙	⊙	—	⊙	
Potassium nitrite		—	—	—	⊙	—	—	
Potassium phosphate		—	—	—	—	—	—	
Potassium silicate		⊙	⊙	⊙	⊙	—	—	
Potassium sulfate		⊙	⊙	⊙	⊙	—	⊙	
Potassium thiosulfate		—	—	—	—	—	—	
Printing ink	⊙	—	—	—	—	—		
Propane	⊙	○	⊙	—	—	—		
Propionaldehyde	△	△	—	○	—	○		