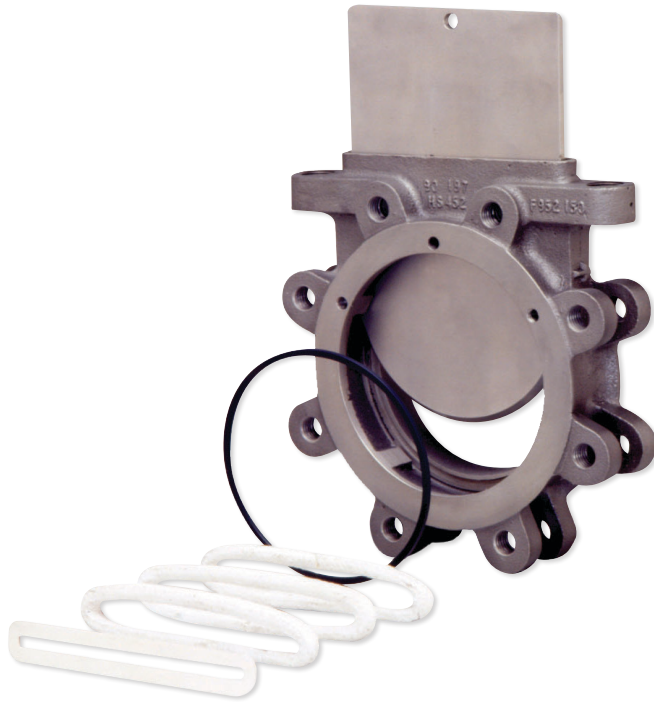




CLARKSON KNIFE GATE VALVES

FIGURE 952/955/956/969

Material compatibility guide for F952, F955, F956 and F969 knife gate valves



KEY

- A:** Resistant. Little or no changes in weight. Small effect on mechanical properties.
- B:** Partially resistant. In course of time, there is a distinct deterioration in mechanical properties and a change in weight. In many cases a short contact may be considered allowable.
- C:** Non-resistant. After a short time, the material is seriously attacked (considerable reduction of the mechanical strength and changes in weight). The use of the material under these conditions is not recommended.
- U:** Unsuitable - (material dissolves).
- I:** Insufficient or no data on which to base a conclusive rating.

NOTE

The following information has been derived from published literature from plastics and polymer supplier and manufacturers. It is therefore intended as a guide only in selecting materials for specific sealing applications in our valves. As the seal material can be influenced by the concentration of the media, temperature, contact time and operating conditions, it must remain the 'users' responsibility for final material selection.

If in doubt we suggest that customers test seals under operating conditions to determine their suitability.

No warranty is given against corrosion or erosion.



CLARKSON KNIFE GATE VALVES

FIGURE 952/955/956/969

Media	RTFE	FKM/Fluoro elastomer	Polyurethane	S.G. Iron	316 S/S	K-LON	Media	RTFE	FKM/Fluoro elastomer	Polyurethane	S.G. Iron	316 S/S	K-LON
Acetaldehyde	B	U	U	A	A	I	Calcium hydroxide	A	A	A	A	A	A
Acetamide (Aq.)	A	C	U	I	A	I	Calcium hypochlorite	A	A	I	C	B	I
Acetylene	A	A	I	A	A	A	Camphor	A	A	I	I	I	I
Acetic acid (Less 50%)	C	U	U	C	A	I	Carbon bisulphide	A	A	I	A	A	A
Acetone	U	U	U	A	A	A	Carbon disulphide	A	A	I	I	I	A
Acetonitrile	A	U	I	I	A	I	Carbon tetrachloride	A	A	I	A	A	A
Acrylonitrile	A	U	I	C	A	A	Carbonic acid	U	A	U	C	A	A
Allyl alcohol	A	B	I	I	I	A	Carnallite (Aq.)	A	I	I	I	I	I
Allyl chloride	A	B	I	C	I	A	Caster oil	A	A	A	B	B	A
Aluminium chloride	A	A	I	C	B	A	Catechol	A	I	I	I	I	I
Aluminium fluoride	A	A	I	I	I	I	Cellulose acetate	A	U	I	I	A	I
Aluminium hydroxide	A	C	I	B	A	A	Chloroacetic acid	U	U	I	C	C	I
Ammonia (Aq.)	U	U	I	A	A	A	Chloral hydrate	A	I	I	I	I	I
Ammonia (30%)	U	U	I	I	A	I	Chloric acid (10%)	A	B	I	I	I	I
Ammonia gas	A	U	I	I	A	I	Chlorine gas, dry	B	U	I	I	I	I
Ammonium acetate	A	B	I	I	I	I	Chlorine gas, wet	U	B	I	I	I	I
Ammonium carbonate	A	U	I	I	A	A	Chlorine water	A	U	U	A	I	I
Ammonium fluoride	A	B	I	I	I	I	Chlorine, Aqueous	A	B	I	C	C	I
Ammonium hydroxide	A	A	A	A	A	A	Chloroethanol	A	I	I	I	I	I
Ammonium nitrate (Fertilizer)	A	A	U	C	A	I	Chlorobenzene	A	U	C	B	A	I
Ammonium phosphate (Fertilizer)	A	A	I	C	A	A	Chlorobrommethane	A	B	I	I	I	A
Ammonium sulphate (Fertilizer)	A	A	I	C	A	A	Chloroform (Trichloromethane)	A	A	I	B	A	A
Ammonium sulphide	A	U	I	I	B	A	Chlorosulfonic acid	U	U	U	I	I	I
Amyl acetate	A	U	U	A	A	A	Chlorothene (Trichlorethane)	A	A	I	I	I	A
Amyl alcohol	A	A	U	I	A	A	Chromic acid (50%)	U	A	U	C	A	I
Amyl chloride	A	A	I	A	A	A	Chromic anhydride	A	I	I	I	I	I
Aniline	C	A	U	A	A	I	Citric acid	U	A	A	C	A	A
Anitomy trichloride (Aq.)	A	I	I	I	I	I	Clophene	A	I	I	I	I	I
Aqua regia	U	B	I	U	U	U	Coconut oil	A	A	A	A	I	A
Arsenic acid	A	A	C	C	B	I	Copper chloride	A	A	A	C	C	A
Barium chloride (Aq.)	A	A	A	C	A	A	Copperfluoride	A	I	I	I	I	I
Barium hydroxide	A	A	A	U	A	A	Creosols	A	A	I	A	I	I
Barium Sulphate (Aq.)	A	A	A	I	A	A	Creosote	A	A	B	I	A	A
Beer	A	A	I	I	A	A	Cresol (ol, ml, p Methylphenol)	A	A	I	I	I	I
Benzaldehyde	A	U	I	A	A	I	Cupric Sulphate (Aq.)	A	I	I	I	I	A
Benzene	A	B	U	A	A	A	Cyanic acid	A	I	I	I	I	I
Benzoic acid	A	A	I	C	A	A	Cyclohexane	A	A	B	B	A	A
Benzyl alcohol	A	A	I	A	A	A	Cyclohexanol	A	A	I	I	I	A
Benzyl chloride	A	B	I	I	A	I	Cyclohexanone	A	U	I	I	I	A
Beverages (Aq.) alcoholic	A	A	I	I	I	I	Decalin	A	A	I	I	A	A
Beverages (Aq.) carbonated	A	A	I	I	I	I	Dextrin	A	A	I	I	I	I
Bitumens	A	A	I	I	I	I	Dibutyl ether	A	I	B	I	A	A
Bleaching dye	A	A	I	I	I	I	Dibutyl phtalate	A	C	C	I	A	A
Borax	A	A	A	A	A	A	Dibutyl sebacate	A	B	U	I	I	A
Boric acid	A	A	A	C	A	A	Dichlorethylene	A	I	U	I	I	I
Bromhydric acid	A	I	I	I	I	I	Dichloroacetic acid	A	I	I	I	I	I
Bromine water, saturated	A	A	I	I	I	A	Dichlorobenzene	A	A	I	I	I	A
Bromine, damp	A	A	I	U	U	I	Dichlorodifluoro methane	A	I	I	I	I	A
Bromine, liquid	A	A	I	C	C	I	Diesel oil	A	A	B	I	A	A
Butadiene	A	B	I	A	A	A	Diethyleneglycol	A	A	I	I	A	A
Butane, liquid	A	A	A	A	A	I	Diethyl ether	A	U	A	I	A	A
Butter	A	A	I	I	A	A	Diethylamine	A	U	I	I	A	I
Butyl acetate	A	U	I	I	A	A	Diethylketone	A	I	I	I	I	A
Butyl alcohol	A	A	I	I	A	A	Diisobutylketone	A	I	I	I	I	A
Butyric acid	U	C	I	C	A	I	Dimethyl carbinol	A	I	I	I	I	A
Butyrolactone	A	I	I	I	I	I	Dimethyl ether	A	I	I	I	I	A
Calcium bisulphite	A	A	A	C	A	A	Dimethyl formamide	A	B	I	I	I	U
Calcium carbonate (Chalk)	A	A	I	I	A	A	Dimethyl phtalate	A	B	I	I	I	A
Calcium chloride (Aq.)	A	A	A	C	B	A	Dimethylamine	A	I	I	I	I	I
Calcium chloride in alcohol	A	A	I	I	I	I	Diocetyl phtalate	A	B	I	I	I	A

CLARKSON KNIFE GATE VALVES

FIGURE 952/955/956/969

Media	RTFE	FKM/Fluoro elastomer	Polyurethane	S.G. Iron	316 S/S	K-LON	Media	RTFE	FKM/Fluoro elastomer	Polyurethane	S.G. Iron	316 S/S	K-LON
Dioxane	A	U	I	I	I	A	Lactic acid (conc.)	A	A	I	C	B	A
Diphenyl ether	A	A	I	I	I	A	Lanoline	A	A	I	I	I	I
Dipropylene glycol	A	I	I	I	I	A	Laughing gas (Nitrous oxide)	A	I	I	I	I	A
Ethanol (Aq.)	A	C	I	I	A	A	Lauric alcohol	A	I	I	I	I	I
Ether diahyl	A	C	I	I	A	I	Llad acetate	A	U	I	I	A	A
Ethyl acetate	A	U	U	A	A	A	Lead stoarate	A	I	I	I	I	I
Ethyl alcohol	A	A	B	I	A	A	Linseed Oil	A	A	I	I	A	A
Ethyl chloride	A	A	I	A	A	A	Lithium bromide (Aq.)	A	I	I	I	I	I
Ethyl ether	A	U	B	A	I	A	Lubricating oils	A	A	B	A	A	A
Ethyl glycol	A	B	I	I	I	A	Magnesium chloride	A	A	A	C	C	I
Ethylene chloride	A	B	I	I	A	A	Magnesium hydroxide	A	A	A	I	A	A
Ethylene diamine	A	I	I	I	A	I	Maleic acid	A	A	I	C	A	I
Ethylene glycol Q	A	A	I	A	A	A	Malonic acid	A	I	I	I	I	I
Ethylene oxide (I20°C)	A	U	I	I	A	A	Menthol	A	I	I	I	I	I
Fat (vegetable oil)	A	A	I	I	A	I	Mercuric chloride	A	A	I	C	C	I
Fat acids (Sup. a C6)	A	A	I	C	A	A	Mercuric nitrate	A	I	I	I	A	I
Ferric chloride	A	B	A	C	C	I	Mercury	A	A	A	A	A	A
Ferrous chloride	A	I	I	C	C	I	Methane	A	A	B	U	A	A
Fluorine (dry)	A	I	I	I	I	I	Methoxybutanol	A	I	I	I	I	I
Fluorthane	A	I	I	I	I	I	Methyl acetate	A	U	I	I	A	A
Fluosilicic acid (Aq.)	A	C	I	C	B	I	Methyl alcohol	A	B	U	A	A	A
Formaldehyde	A	A	U	B	A	I	Methylamine	A	I	I	I	A	I
Formamide	A	U	I	I	I	I	Methyl bromide	A	A	I	I	A	A
Formic acid	A	U	U	C	A	I	Methyl dichloroacetate	A	I	I	I	I	I
Freon 11 (Monofluorotrichloromethane)	U	A	U	I	A	A	Methylchloride	A	B	I	A	A	A
Freon 12 (Dichlorodifluoromethane)	U	B	A	I	A	A	Methylene chloride	A	B	U	I	A	A
Freon 22 (Monochlorodifluoromethane)	A	U	U	I	A	A	Methylethylketone	A	U	U	A	A	I
Freon 113 (Trifluorotrichlorethane)	U	B	B	I	A	A	Methylglycol	A	A	I	I	I	I
Fruit juices	A	A	I	C	A	I	Methylisobutylic keton	A	U	I	I	I	A
Fuel (household)	A	A	B	I	A	A	Methylmonochloracetate	A	I	I	I	I	I
Furfural	A	B	I	A	A	I	Methyl pyrrolidone	A	I	I	I	I	I
Furfurylchcohol	A	A	I	I	I	A	Methylsulphuric acid	A	I	I	I	I	I
Gasoil	A	A	I	I	A	A	Milk	A	A	I	U	A	A
Gasoline	A	A	A	A	B	A	Morpholine	A	I	I	A	A	I
Glucose	A	A	I	I	A	A	Naphta	A	A	C	I	A	A
Glycerine/Clycerol	A	A	A	B	A	A	Naphtalene	A	A	B	A	A	A
Glycolic acid	A	I	I	I	I	I	Natural gas	A	A	B	I	I	A
Heptane	A	A	I	I	A	A	Nickel sulphate	A	A	A	I	A	A
Hexane	A	A	I	I	A	A	Nitric acid (conc.)	U	A	U	C	B	U
Hexyalcohol (Hexanol)	A	A	I	I	I	A	Nitric acid (fuming)	U	B	U	I	I	U
Hydrobromic acid (Bromic acid) 50%	U	A	I	C	C	I	Nitric anhydride	A	I	I	I	I	I
Hydrochloric acid (conc.)	A	A	U	C	C	I	Nitrobenzene	A	B	U	A	A	I
Hydrofluoric acid (dil.)	U	A	I	C	C	I	Nitrogen (gas)	A	A	A	A	A	A
Hydrogen	A	A	I	I	I	A	Nitroglycerin	A	I	I	I	I	I
Hydrogen peroxide (30%)	A	A	I	I	I	B	Nitromethane	A	U	I	I	I	I
Hydrogen phosphide	A	I	I	I	I	I	Nitrotoluene	A	I	I	I	I	I
Hydrogen sulphide	A	B	I	C	A	A	Octane	A	A	I	I	I	A
Hydro quinone	A	B	I	I	I	A	Octyl cresol	A	A	I	I	I	I
Hydroiodic acid	A	I	U	I	I	I	Oil (Crude)	A	A	B	I	A	A
Iodine (dry)	A	A	U	U	U	I	Oil (Lavenderl)	A	A	I	I	I	A
Iodine (wet)	A	A	U	I	C	I	Oil (Mineral)	A	A	A	I	A	A
Iodoform	A	I	I	I	I	A	Oil (Ricinul)	A	A	I	I	I	I
Isobutyl acetate	A	U	I	I	I	A	Oil (Siliconel)	A	A	I	A	A	A
Isobutyl alcohol (Isobutanol)	A	A	U	I	I	A	Oil (Transformerl)	A	A	I	I	I	A
Isocotane	A	A	B	I	I	A	Oil (Turpentine)	A	A	I	A	A	A
Isopropyl acetate	A	U	A	I	I	A	Oil (Vaseline)	A	A	I	I	I	I
Isopropyl alcohol (Isopropanol)	A	A	I	I	I	A	Oil (Vegetable) /Fats	A	A	I	I	A	A
Isopropyl ether	A	U	B	I	I	A	Oleic acid	A	B	I	I	A	A
Javelle water	A	I	I	I	I	I	Oleum	A	A	I	C	A	U
Kerosene	A	A	I	I	A	A	Oxalic acid	A	A	I	C	B	I

CLARKSON KNIFE GATE VALVES

FIGURE 952/955/956/969

Media	RTFE	FKM/Fluoro elastomer	Polyurethane	S.G. Iron	316 S/S	K-LON	Media	RTFE	FKM/Fluoro elastomer	Polyurethane	S.G. Iron	316 S/S	K-LON
Oxygen (Gas)	U	A	I	I	A	U	Sodium chloride	A	A	A	C	B	A
Ozone	A	A	I	U	A	U	Sodium cyanide	A	I	I	A	A	I
Palmitic acid	A	A	I	I	A	A	Sodium hydroxide	U	C	B	B	A	U
Perchloric acid	I	A	I	C	C	U	Sodium hypochlorite	A	B	U	C	C	I
Perchlorethylene	A	A	U	A	A	A	Sodium nitrite	A	I	I	I	I	I
Petrol, Normal	A	A	B	I	A	I	Sodium peroxide	U	A	U	A	A	I
Petrol, Super	A	A	U	I	A	I	Sodium phosphate	A	A	A	C	A	A
Petroleum ether	A	U	B	I	I	A	Sodium silicate	A	A	I	B	A	A
Phenol	A	A	U	C	A	I	Sodium sulphide	A	A	I	C	A	A
Phenylethyl alcohol	A	I	I	I	I	I	Sodium sulphite	A	A	I	A	A	A
Phosphorous trichloride	A	A	I	I	I	I	Sodium thiosulphate	A	A	I	C	B	A
Phosgen (Liquid)	A	I	I	I	I	I	Spirituos liquor	A	A	I	I	A	I
Phosphoric acid	U	A	A	C	A	A	Stannic sulphate (Aq.)	A	A	I	I	I	I
Phthalic acid	A	I	I	I	I	I	Stearic acid	A	I	A	I	A	A
Picric Acid	A	A	B	C	U	I	Styrene	A	B	I	A	A	A
Potassium acetate	A	U	I	I	A	A	Sulphur	A	A	I	A	A	A
Potassium bichromate	A	A	I	I	I	I	Sulphur dichloride	A	A	I	I	I	I
Potassium bromate	A	I	I	I	I	I	Sulphur dioxide	A	A	I	A	A	A
Potassium bromide	A	I	I	C	A	I	Sulphur trioxide	U	A	I	I	I	A
Potassium carbonate (Potash)	A	I	I	B	A	A	Sulphuric acid (10%)	U	A	B	C	C	U
Potassium cyanide	A	I	A	A	A	I	Sulphuric acid (60%)	U	A	U	C	C	U
Potassium ferricyanide (Aq.)	A	I	I	I	I	I	Sulphuric acid (fuming)	U	A	U	A	C	U
Potassium ferrocyanide (Aq.)	A	I	I	I	I	I	Sulphuric acid (95%)	U	A	U	B	C	U
Potassium hydroxide	U	A	B	B	A	C	Sulphuryl chloride	A	I	I	I	I	I
Potassium hypochloride	A	I	I	I	I	I	Tannic acid	A	A	A	A	A	I
Potassium nitrate	A	A	A	I	A	I	Tar	A	A	I	A	A	A
Potassium perchlorate	A	I	I	I	I	I	Tartaric acid	A	A	A	B	A	A
Potassium permanganate (10%)	A	I	I	A	A	I	Tetrabromethane	A	A	I	I	I	I
Potassium persulphate	A	I	I	I	I	I	Tetrahydrofurane	A	C	I	I	I	I
Potassium sulphate	A	A	A	I	A	A	Tetrahydronaphtalene	A	I	I	I	I	A
Potassiumaluminium sulphate	A	I	I	I	I	I	Thionyl chloride	A	C	I	I	I	I
Propane (Liquid)	A	A	B	I	A	A	Thiophene	A	I	I	I	I	I
Propionic acid	A	I	I	I	A	I	Toluene	U	B	C	A	A	A
Propyl acetate	A	U	I	I	I	A	Tributyl phosphate/Triethyl phosphate	A	U	U	I	I	A
Propyl alcohol	A	A	I	B	A	A	Trichloroacetic acid	A	C	I	U	U	I
Propylene glycol	A	I	I	A	A	A	Trichloroethylene	A	B	U	A	A	A
Pyridine	A	U	I	I	I	I	Trichlorophenol/Trichlorobenzene	A	I	I	I	I	I
Pyrogallol	A	I	I	I	I	I	Triethanolamine	A	U	I	U	A	A
Resorcin	A	I	I	I	I	I	Triethylamine	A	I	I	I	I	I
Ricinusoil	A	I	I	I	I	A	Tricotyl phosphate	A	B	I	I	I	I
Sewerage	A	A	U	A	A	A	Trisodium phosphate (Aq.)	A	I	I	I	A	A
Silicic acid	A	A	I	I	I	I	Urea	A	B	I	I	I	I
Silicone fluids	A	A	I	I	I	A	Urine	A	I	I	I	I	I
Silver nitrate	A	A	A	C	U	A	Vinegar	A	A	I	I	A	A
Soap solutions	A	A	A	A	A	A	Vinyl chloride	A	I	I	U	A	A
Sodium acetate	A	U	U	A	A	A	Water (Sea)	A	C	I	I	B	A
Sodium bicarbonate	A	A	I	A	A	A	Water (Source)	A	B	I	I	I	A
Sodium bisulphate	A	A	I	C	A	A	Water with carbon dioxide	A	B	I	I	I	I
Sodium bisulphite	A	A	I	C	A	A	Wine	A	A	I	I	A	A
Sodium bromide (Aq.)	A	I	I	I	U	I	Xylene	A	A	I	I	A	A
Sodium carbonate	A	A	I	A	A	A	Zinc chloride	A	A	I	C	C	U
							Zinc oxide	A	I	I	I	I	I

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