Chemical resistance guide

Comparison of media resistance of most common gasket sealing materials mentioned in this brochure.
There are four different cases:

A	1. Suitable
B	2. Depends on conditions
C	3. Not suitable
-	4. No data available

In case of resistance result is B, resistance depending on operating conditions, consult the enigineers of Leader Gasket Technologies.

The following media resistance list should give an overview. For media that are not included in this list, you are advised to contact the engineering team of the Leader group.

	Graphite Foil	SS316	PTFE	Leader THERM	Clipperlon 2100	Clipperlon 2110	Clipperlon 2120	Clipperlon 2130
Acetaldehyde	-	-	-	B	A	A	A	A
Acetamide	A	A	A	B	A	A	A	A
Acetic Acid	-	-	-	A	A	A	A	A
Acetic Acid Glacial	-	-	-	A	A	A	A	A
Acetic Anhydride	-	-	-	-	A	A	A	A
Acetone	A	-	A	B	A	A	A	A
Acetonitrile	-	-	-	-	A	A	A	A
Acetyl Chloride	-	-	-	-	A	A	A	A
Acetylene	A	A	A	B	A	A	A	A
Acrylic Acid	A	A	A	-	A	A	A	A
Acrylonitrile	A	A	A	-	A	A	A	A
Adipic Acid	A	A	A	A	A	A	A	A
Air	-	-	-	A	A	A	A	A
Allyl Chloride	-	-	-	-	A	A	A	A
Alum	A	B	A	A	A	A	A	A
Aluminium Acetate	A	A	A	A	A	A	A	A
Aluminium chlorate	A	A	A	A	-	-	-	-
Aluminium Chloride	A	C	A	A	A	A	A	A
Aluminium Hydroxide	-	-	-	-	A	A	A	A
Aluminium Sulphate	A	B	A	-	A	A	A	A
Aluminum fluoride	A	C	A	-	-	-	-	-
Ammonia	A	A	A	A	-	-	-	-
Ammonia Gas	A	A	A	A	A	A	A	A
Ammonium bifluoride	A	A	A	-	-	-	-	-
Ammonium Carbonate	A	A	A	A	A	A	A	A
Ammonium Chloride	A	B	A	A	A	A	A	A
Ammonium diphosphate	A	A	A	A	-	-	-	-
Ammonium fluoride	A	A	A	-	-	-	-	-
Ammonium Hydroxide	A	A	A	A	A	A	A	A
Ammonium Sulphate	-	-	-	-	A	A	A	A
Amyl Acetate	A	A	A	A	A	A	A	A
Amyl Alcohol	A	A	A	-	A	A	A	A
Aniline (aminobenzene)	A	A	A	B	A	A	A	A
Aqua Regia	C	C	A	-	A	A	A	A
Arcton 12	-	-	-	C	-	-	-	-
Arcton 22	-	-	-	C	-	-	-	-
Asphalt	-	-	-	A	A	A	A	A
Aviation Fuel	-	-	-	-	A	A	A	A
Barium Chloride	A	A	A	A	A	A	A	A
Barium salt, aqueous	A	A	A	-	-	-	-	-
Benzaldehyde	-	-	-	-	A	A	A	A
Benzene	A	A	A	B	A	A	A	A
Benzoic Acid	A	A	A	A	A	A	A	A
Benzonitrile	-	-	-	-	A	A	A	A
Benzyl Alcohol	-	-	-	-	A	A	A	A
Benzyl Chloride	A	A	B	-	A	A	A	A
Black liquor (sulfate)	A	-	A	-	-	-	-	-

	Graphite Foil	SS316	PTFE	Leader THERM	Clipperlon 2100	Clipperlon 2110	Clipperlon 2120	Clipperlon 2130
Black liquor (sulfide)	A	-	A	-	-	-	-	-
Blast Furnace Gas	-	-	-	A	A	A	A	A
Bleach (solution)	A	B	A	A	A	A	A	A
Boiler Feed Water	-	-	-	-	A	A	A	A
Borax	A	A	A	A	A	A	A	A
Boric Acid	A	A	A	A	A	A	A	A
Brine	-	-	-	-	A	A	A	A
Bromine	C	C	A	-	A	A	A	A
Bromine trifluoride	C	C	C	-	-	-	-	-
Butadiene	A	A	A	-	A	A	A	A
Butane	A	A	B	-	A	A	A	A
Butanol	A	A	A	B	A	A	A	A
Butanone (methyl ethyl ketone)	A	A	A	B	-	-	-	-
Butyl Acetate	A	A	A	B	A	A	A	A
Butyl Alcohol	-	-	-	B	A	A	A	A
Butyl amine	A	A	A	B	-	-	-	-
Butyl Methacrylate	-	-	-	-	A	A	A	A
Butylphenol	A	A	A	-	-	-	-	-
Butyric Acid	A	A	A	B	A	A	A	A
Calcium Chloride	A	B	A	A	A	A	A	A
Calcium Hydroxide	A	A	A	A	A	A	A	A
Calcium Hypochlorite	A	B	A	A	A	A	A	A
Calcium oxide	A	A	A	-	-	-	-	-
Calcium Sulphate	A	A	A	A	A	A	A	A
Carbamide (urea)	A	A	A	-	-	-	-	-
Carbolic Acid	A	A	A	-	A	A	A	A
Carbon Dioxide	A	A	A	A	A	A	A	A
Carbon Disulphide	A	A	A	B	A	A	A	A
Carbon hydride	A	A	A	-	-	-	-	-
Carbon Monoxide	-	-	-	-	A	A	A	A
Carbon Tetrachloride	A	A	A	B	A	A	A	A
Castor Oil	-	-	-	A	A	A	A	A
Caustic potash solution, liquid	A	A	A	-	-	-	-	-
Caustic Soda < 25%	A	C	A	-	C	B	A	A
Caustic Soda < 50%	A	C	A	-	C	B	A	A
Caustic Soda > 50%	A	C	A	-	C	B	A	A
Cesium melt	-	-	C	-	-	-	-	-
Chlorine (Dry)	A	A	A	B	A	A	A	A
Chlorine (Wet)	C	C	A	-	A	A	A	A
Chlorine bleach liquor	A	C	A	-	-	-	-	-
Chlorine Dioxide	C	C	A	-	A	A	A	A
Chlorine Liquid	C	C	A	-	A	A	A	A
Chlorine trifluoride	C	C	C	-	-	-	-	-
Chloroacetic Acid	A	C	A	-	A	A	A	A
Chlorobezene	A	A	A	-	A	A	A	A
Chloroform	A	A	A	B	A	A	A	A
Chloromethane (methyl chloride)	A	A	A	B	-	-	-	-
Chlortriflouride	-	-	-	-	C	C	C	C
Chromic Acid	A	A	A	B	A	A	A	A
Chroming solutions	B	B	-	-	-	-	-	-
Citric Acid	-	-	-	A	A	A	A	A
Condensation Water	-	-	-	A	A	A	A	A
Copper Acetate	A	A	A	A	A	A	A	A
Copper Sulphate	A	A	A	A	A	A	A	A
Creosote	-	-	-	-	A	A	A	A
Cresol	A	A	A	A	A	A	A	A
Crude Oil	-	-	-	A	A	A	A	A
Cyclohexane	A	A	A	-	A	A	A	A
Cyclohexanol	A	A	A	A	A	A	A	A
Cyclohexanone	A	A	A	B	A	A	A	A
Decalin (decahydronaphthalene)	A	A	A	A	-	-	-	-
Di-Benzyl Ether	A	A	A	B	A	A	A	A
Dibutyl Phthalate	A	A	A	A	A	A	A	A
Diesel Oil	A	A	A	-	A	A	A	A
Diethanolamine	-	-	-	-	A	A	A	A
Diethyl ketone (3-Pentanone)	A	A	A	-	-	-	-	-
Diethylamine	-	-	-	-	A	A	A	A
Di-iso Butyl Ketone	-	-	-	-	A	A	A	A

	Graphite Foil	SS316	PTFE	Leader THERM	Clipperlon 2100	Clipperlon 2110	Clipperlon 2120	Clipperlon 2130
Dimethyl Formamide	A	A	A	-	A	A	A	A
Dimethylamine	A	A	A	-	A	A	A	A
Dioxane	A	A	A	-	A	A	A	A
Diphenyl (biphenyl)	A	A	A	-	-	-	-	-
Diphyl (Dowtherm A)	-	-	-	A B	A	A	A	A
Dithiophosphoric acid	A	-	A	-	-	-	-	-
Ethane	A	A	A	A	A	A	A	A
Ethanoic acid (pure acetic acid)	A	B	A	-	-	-	-	-
Ethanol	A	A	A	B	A	A	A	A
Ethyl Acetate	A	A	A	B	A	A	A	A
Ethyl Acrylate	-	-	-	-	A	A	A	A
Ethyl Alcohol	A	A	A	B	A	A	A	A
Ethyl Chloride (Dry)	A	A	A	B	A	A	A	A
Ethyl Ether	A	A	A	B	A	A	A	A
Ethylbenzene	-	-	-	-	A	A	A	A
Ethylene	A	A	A	B	A	A	A	A
Ethylene Chloride	A	A	A	B	A	A	A	A
Ethylene diamine	A	A	A	B	-	-	-	-
Ethylene Glycol	A	A	A	A	A	A	A	A
Ethylene oxide	A	A	C	-	-	-	-	-
Fatty acids	-	-	-	A	-	-	-	-
Fatty alcohols	A	A	A	-	-	-	-	-
Fluorine benzene	A	A	A	-	-	-	-	-
Fluorine Dioxide	C	C	C	-	C	C	C	C
Fluorine Gaseous	-	-	-	-	C	C	C	C
Fluorine hydrogen chloride	A	A	B	-	-	-	-	-
Fluorine Liquid	C	C	C	-	C	C	C	C
Fluorine, gaseous	B	C	C	-	-	-	-	-
Fluoroboric acid (borofluoric acid)	C	C	A	-	-	-	-	-
Fluorocarbon (hydrofluorocarbons)	A	A	A	-	-	-	-	-
Fluorosilicic acid (HF)	-	-	A	-	-	-	-	-
Fluosilic acid	A	-	A	-	-	-	-	-
Formaldehyde	A	A	A	B	A	A	A	A
Formamide	A	A	A	-	A	A	A	A
Formic Acid 10%	A	B	A	A	A	A	A	A
Formic Acid 85%	-	-	-	B	A	A	A	A
Freon 12	-	-	-	C	-	-	-	-
Freon 22	-	-	-	C	-	-	-	-
Fuel Oil	-	-	-	A	A	A	A	A
Gas (LPG)	-	-	-	-	A	A	A	A
Gas (Natural Gas)	-	-	-	-	A	A	A	A
Gas Oil	-	-	-	-	A	A	A	A
Gasoline	A	A	A	B	A	A	A	A
Generator Gas	-	-	-	-	A	A	A	A
Glucose	-	-	-	-	A	A	A	A
Glycerine	A	A	A	A	A	A	A	A
Gylcol	A	A	A	-	A	A	A	A
Heating Oil	-	-	-	B	A	A	A	A
Heptane	A	A	A	-	A	A	A	A
Hexachloro benzene	-	-	-	A	-	-	-	-
Hexamine (Urotropine)	A	-	-	-	-	-	-	-
Hexane	-	-	-	-	A	A	A	A
Hydraulic Oil	-	-	-	-	A	A	A	A
Hydraulic oil	A	A	A	A	-	-	-	-
Hydrazine	A	A	A	-	-	-	-	-
Hydrazine hydrate	A	A	A	A	-	-	-	-
Hydrochloric acid (aqueous)	A	C	A	A	-	-	-	-
Hydrochloric acid (dry)	A	C	A	A	-	-	-	-
Hydrochloric Acid 20%	A	C	A	A	A	A	A	A
Hydrochloric Acid 37%	A	C	A	A	A	A	A	A
Hydrocyanic acid	A	A	A	-	-	-	-	-
Hydrofluoric Acid <65%	A	C	A	-	C	C	A	A
Hydrofluoric Acid >65%	-	-	-	-	C	C	B	A
Hydrofluorosillic Acid	-	A	A	-	C	C	B	B
Hydrogen	-	-	-	A	A	A	A	A
Hydrogen Chloride (Dry)	A	C	A	-	A	A	A	A
Hydrogen Flouride	A	C	A	B	C	C	C	A
Hydrogen Peroxide (6%)	B	A	A	A	A	A	A	A
Hydrogen Sulphide	A	B	A	-	A	A	A	A
Hydrosilicic fluoric acid	A	-	A	-	-	-	-	-

	Graphite Foil	SS316	PTFE	Leader THERM	Clipperlon 2100	Clipperlon 2110	Clipperlon 2120	Clipperlon 2130
Hydrosilico fluoride	A	-	A	-	-	-	-	-
Iodine	A	A	A	-	-	-	-	-
Isoctane	A	A	A	A	A	A	A	A
Isopropyl Acetate	-	-	-	-	A	A	A	A
Isopropyl Alcohol	A	A	A	B	A	A	A	A
Isopropyl Ether	-	-	-	-	A	A	A	A
Kerosene	A	A	A	A	A	A	A	A
Kerosine	A	A	A	-	-	-	-	-
Ketone	A	A	A	-	-	-	-	-
Lactic Acid	A	B	A	A	A	A	A	A
Lauryl alcohol	A	A	A	-	-	-	-	-
Lead acetate	A	A	A	A	-	-	-	-
Lead arsenate	A	A	A	A	-	-	-	-
Lime water	A	A	A	-	-	-	-	-
Linseed Oil	-	-	-	A	A	A	A	A
Liquid Petroleum Gas	-	-	-	-	A	A	A	A
Lithium bromide	A	A	A	-	-	-	-	-
Lithium melt	-	-	C	-	-	-	-	-
Lubricating Oil	-	-	-	-	A	A	A	A
Luminescent gas	-	-	-	B				
Machine Oil	-	-	-	-	A	A	A	A
Magnesium hydroxide	A	A	A	-	-	-	-	-
Magnesium Sulphate	A	A	A	A	A	A	A	A
Maleic Acid	A	A	A	A	A	A	A	A
Maleic Anhydride	A	A	A	-	A	A	A	A
Methane	A	A	A	B	A	A	A	A
Methanol	A	A	A	B	A	A	A	A
Methyl Alcohol	A	A	A	B	A	A	A	A
Methyl Chloride	-	-	-	B	A	A	A	A
Methyl Ethyl Ketone	-	-	-	B	A	A	A	A
Methyl Methacrylate	-	-	-	-	A	A	A	A
Methylated Spirits	-	-	-	-	A	A	A	A
Methylene Chloride	A	B	B	B	A	A	A	A
Mineral Oil	-	-	-	A	A	A	A	A
Mobiltherm 600	-	-	-	-	A	A	A	A
Mobiltherm 603/605	-	-	-	-	A	A	A	A
Molten Alkali Metals	-	-	-	-	C	C	C	C
Morpholine	A	-	A	-	-	-	-	-
Motor Oil	-	-	-	-	A	A	A	A
Naphtha	A	-	A	-	A	A	A	A
Naphthalene	A	-	A	-	A	A	A	A
Natural Gas	A	A	A	B	A	A	A	A
Nickel Chloride	-	-	-	-	A	A	A	A
Nickel Sulphate	-	-	-	-	A	A	A	A
Nitric Acid < 30%	B	C	A	A	A	A	A	A
Nitric Acid > 30%	B	C	A	A	A	A	A	A
Nitric Acid Red Fuming	-	-	-	-	A	A	A	A
Nitrobenzene	A	A	A	A	-	-	-	-
Nitrogen	-	-	-	A	A	A	A	A
Octane	A	A	A	A	A	A	A	A
Oil	A	A	A	-	-	-	-	-
Oleic Acid	A	A	A	A	A	A	A	A
Oleum	C	C	A	A	A	A	C	A
Oxalic Acid	A	C	A	A	A	A	A	A
Oxygen	A	A	A	A	A	C	A	A
Paint thinner	-	-	-	A	-	-	-	-
Palmitic Acid	A	A	A	A	A	A	A	A
Paraffin	-	-	-	-	A	A	A	A
p-dihydroxybenzene	A	-	A	-	-	-	-	-
Pentane	A	A	A	A	A	A	A	A
Perchloric Acid	B	C	A	-	A	A	A	A
Perchloro ethylene	A	A	A	B	A	A	A	A
Petrol ether	-	-	-	B	-	-	-	-
Petroleum	A	A	A	A	A	A	A	A
Phenol	A	A	A	A	A	A	A	A
Phosgene	A	A	A	-	A	A	A	A
Phosphoric Acid < 45%	A	A	A	A	A	A	A	A
Phosphoric Acid > 45%	A	B	A	A	B	B	A	A
Phosphoric acid, impure	A	B	A	-	-	-	-	-
Phthalic Acid	A	A	A	A	A	A	A	A

	Graphite Foil	SS316	PTFE	Leader THERM	Clipperlon 2100	Clipperlon 2110	Clipperlon 2120	Clipperlon 2130
Phthalic Anyhydride	-	-	-	-	A	A	A	A
Polychlorinated biphenyl (Clophen)	A	A	A	-	-	-	-	-
Potassium Acetate	A	A	A	A	A	A	A	A
Potassium bifluorine, saturated	A	A	A	-	-	-	-	-
Potassium Carbonate	A	A	A	A	A	A	A	A
Potassium Chlorate	C	A	A	A	A	A	A	A
Potassium Chloride	A	A	A	A	A	A	A	A
Potassium chromate	B	C	A	-	-	-	-	-
Potassium chrome sulfate	-	C	A	A	-	-	-	-
Potassium Cyanide	A	A	A	A	A	A	A	A
Potassium Dichromate <20%	-	-	-	A	A	A	A	A
Potassium Hydroxide < 50%	A	A	A	A	C	C	A	A
Potassium Hydroxide >50%	A	A	A	A	C	C	A	A
Potassium Hypochlorite	A	C	A	A	A	A	A	A
Potassium iodide	A	A	A	A	-	-	-	-
Potassium melt up to 350 °C	A	-	C	-	-	-	-	-
Potassium Nitrate	C	C	A	A	A	A	A	A
Potassium nitrate (melt)	C	C	C	-	-	-	-	-
Potassium Permanganate	A	A	A	A	A	A	A	A
Potassium silicate	A	A	A	-	-	-	-	-
Producer Gas	-	-	-	-	A	A	A	A
Propane	A	A	A	A	A	A	A	A
Pyridine	A	A	A	B	A	A	A	A
Rape Seed Oil	-	-	-	A	A	A	A	A
Refrigerant R11	-	-	-	-	A	A	A	A
Refrigerant R112	-	-	-	-	A	A	A	A
Refrigerant R113	-	-	-	-	A	A	A	A
Refrigerant R114	-	-	-	-	A	A	A	A
Refrigerant R114B2	-	-	-	-	A	A	A	A
Refrigerant R115	-	-	-	-	A	A	A	A
Refrigerant R12	-	-	-	-	A	A	A	A
Refrigerant R123	-	-	-	-	A	A	A	A
Refrigerant R125	-	-	-	-	A	A	A	A
Refrigerant R13	-	-	-	-	A	A	A	A
Refrigerant R134A	-	-	-	-	A	A	A	A
Refrigerant R13B1	-	-	-	-	A	A	A	A
Refrigerant R141A	-	-	-	-	A	A	A	A
Refrigerant R141B	-	-	-	-	A	A	A	A
Refrigerant R152A	-	-	-	-	A	A	A	A
Refrigerant R22	-	-	-	-	A	A	A	A
Refrigerant R402A	-	-	-	-	A	A	A	A
Refrigerant R402B	-	-	-	-	A	A	A	A
Refrigerant R404A	-	-	-	-	A	A	A	A
Refrigerant R502	-	-	-	-	A	A	A	A
Refrigerant R507	-	-	-	-	A	A	A	A
Salicylic Acid	-	-	-	-	A	A	A	A
Salicylic acid	A	A	A	A	-	-	-	-
Santotherm 66	-	-	-	-	A	A	A	A
Sea Water	-	-	-	A	A	A	A	A
Silicone Oil	-	-	-	A	A	A	A	A
Silver Nitrate	-	-	-	-	A	A	A	A
Skydrole 500	-	-	-	A	-	-	-	-
Soap	-	-	-	A	A	A	A	A
Soda	A	A	A	-	-	-	-	-
Sodium acetate	A	A	A	-	-	-	-	-
Sodium Aluminate	A	-	A	A	A	A	A	A
Sodium ammonium hydrogen phosphate	A	A	A	-	-	-	-	-
Sodium Bicarbonate	A	A	A	A	A	A	A	A
Sodium Bisulphite	A	A	A	A	A	A	A	A
Sodium carbonate	A	A	A	A	-	-	-	-
Sodium Chloride	A	B	A	A	A	A	A	A
Sodium cyanide	A	A	A	A	-	-	-	-
Sodium hexafluoroaluminate / cryolite	A	-	A	-	-	-	-	-
Sodium Hydroxide < 25%	A	C	A	A	C	B	A	A
Sodium Hydroxide < 50%	A	C	A	A	C	B	A	A
Sodium Hydroxide > 50%	A	C	A	A	C	B	A	A
Sodium hypochlorite	A	C	A	-	-	-	-	-
Sodium melt up to 350 °C	A	-	C	-	-	-	-	-
Sodium phosphate, bibasic	A	A	A	-	-	-	-	-
Sodium phosphate, tribasic	A	A	A	-	-	-	-	-

	Graphite Foil	SS316	PTFE	Leader THERM	Clipperlon 2100	Clipperlon 2110	Clipperlon 2120	Clipperlon 2130
Sodium Silicate	A	A	A	A	A	A	A	A
Sodium Sulphate	A	A	A	A	A	A	A	A
Sodium Sulphide	A	B	A	A	A	A	A	A
Starch	-	-	-	A	A	A	A	A
Steam	-	-	-	A	A	A	A	A
Stearic Acid	A	A	A	A	A	A	A	A
Styrene	A	A	C	-	A	A	A	A
Sugar	-	-	-	A	A	A	A	A
Sulphur	-	-	-	-	A	A	A	A
Sulphur Dioxide Dry	A	A	A	A	A	A	A	A
Sulphur Trioxide	C	C	A	-	A	A	A	A
Sulphuric Acid 30%	A	C	A	C	A	A	A	A
Sulphuric Acid 50%	A	C	A	C	A	A	A	A
Sulphuric Acid 96%	A	C	A	C	A	A	B	A
Sulphuric Acid Fuming	C	C	A	-	A	B	C	A
Sulphurous Acid	A	B	A	A	A	A	A	A
Tannic Acid	A	A	A	A	A	A	A	A
Tannin	A	A	A	-	-	-	-	-
Tar	-	-	-	A	A	A	A	A
Tartaric Acid	-	-	-	A	A	A	A	A
Tetrachloro ethane	A	A	A	B	A	A	A	A
Tetrafluor boric acid (HF)	A	C	A	-	-	-	-	-
Tetraline	A	A	A	A	-	-	-	-
Thermal Oil	-	-	-	-	A	A	A	A
Toluene	A	A	A	A	A	A	A	A
Transformer Oil	-	-	-	A	A	A	A	A
Transmission Oil	-	-	-	-	A	A	A	A
Tricalcium phosphate	A	A	A	-	-	-	-	-
Trichlorethylene	A	A	A	B	A	A	A	A
Trichlorotrifluoroethane (F113)	A	A	B	-	-	-	-	-
Triethanolamine	A	-	A	A	A	A	A	A
Triethylene aluminium	A	-	C	-	-	-	-	-
Triethylenetetramine	A	-	A	-	-	-	-	-
Trisodium phosphate	A	A	A	-	-	-	-	-
Turpentine	A	A	A	A	A	A	A	A
Urea	-	-	-	A	A	A	A	A
Vegetable Oil	-	-	-	-	A	A	A	A
Vinyl Acetate	-	-	-	A	A	A	A	A
Vinyl Bromide	-	-	-	-	A	A	A	A
Vinyl Chloride	A	-	A	-	A	A	A	A
Water	-	-	-	A	A	A	A	A
White Spirit	-	-	-	-	A	A	A	A
Xylene	-	-	-	A	A	A	A	A
Zinc Chloride	-	-	-	-	A	A	A	A
Zinc Sulphate	-	-	-	-	A	A	A	A

The above information in this document corresponds to the current state of our knowledge and is intended to inform about our products and their potential applications. It is therefore not intended to assure certain properties for a specific purpose. Any existing industrial property rights are to be taken into account. We guarantee perfect quality within the framework of our general terms and conditions of sale".