

# KLINGERSIL® COMPRESSED FIBER GASKET MATERIALS

## Chemical Compatibility Chart

The information in this chart should only be used as a general rule to the selection of a suitable material.

<b>A:</b> Generally suitable* <b>B:</b> Generally suitable with sufficient surface stress. Do not expose to free immersion* <b>C:</b> Critical application. Do not use without contacting manufacturer * when proper assembly rules are followed	C-4201	C-4300 C-4401	C-4408 C-4409	C-4324	C-4430 C-4433	C-4439	C-4500	C-4509	C-5400	C-6327 C-6400	C-7400	C-8200
Acetaldehyde	B	B	B	B	B	B	B	B	C	B	B	A
Acetic Acid 10%	A	A	C	A	A	C	A	C	A	A	A	A
Acetic Acid 100%	A	A	A	A	A	C	A	C	B	B	B	A
Acetic Ether	B	B	B	B	B	B	B	B	B	B	B	B
Acetone	B	B	B	B	B	B	B	B	B	A	A	A
Acetylene	A	A	A	A	A	A	A	A	A	A	A	A
Adipic Acid	A	A	A	A	A	A	A	A	A	A	A	A
Air	A	A	A	A	A	A	A	A	A	A	A	A
Alum	A	A	B	A	A	B	A	B	A	A	A	A
Aluminum Acetate	A	A	B	A	A	B	A	B	A	A	A	A
Aluminum Chloride	A	A	B	A	A	B	A	B	A	A	A	A
Ammonia	A	A	A	A	A	A	A	A	A	B	A	A
Ammonium Bicarbonate	A	A	A	A	A	A	A	A	A	A	A	A
Ammonium Chloride	A	A	C	A	A	C	A	C	A	A	A	A
Ammonium Diphosphate	A	A	A	A	A	A	A	A	A	A	A	A
Ammonium Hydroxide	B	B	B	A	A	B	A	B	B	B	B	A
Amyl Acetate	B	B	B	B	B	B	B	B	A	B	B	B
Aniline	C	C	C	C	C	C	C	C	C	B	B	C
Aviation Fuels	A	A	A	A	A	A	A	A	A	C	C	A
Barium Chloride	A	A	A	A	A	A	A	A	A	A	A	A
Benzene	A	A	A	A	A	A	A	A	B	C	C	A
Benzoic Acid	B	B	B	B	B	B	A	B	A	B	B	A

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Boiler Feeder Water	A	A	A	A	A	A	A	A	A	A	A	A
Boric Acid	A	A	A	A	A	A	A	A	A	A	A	A
Butane	A	A	B	A	A	B	A	B	A	C	C	A
Butanone (MEK)	B	B	B	B	B	B	B	B	C	C	C	B
Butyl Acetate	B	B	B	B	B	B	B	B	B	B	B	B
Butyl Alcohol (Butanol)	A	A	A	A	A	A	A	A	A	A	A	A
Butyric Acid	A	A	A	A	A	A	A	A	A	A	A	A
Calcium Chloride	A	A	B	A	A	B	A	B	A	A	A	A
Calcium Hydroxide	A	A	A	A	A	B	A	B	A	A	A	A
Calcium Hypochlorite	A	A	C	A	A	C	A	C	B	A	A	A
Carbon Dioxide	A	A	A	A	A	A	A	A	A	A	A	A
Carbon Disulfide	C	C	C	C	C	C	B	C	B	C	C	C
Carbon Tetrachloride	B	B	B	B	B	B	B	B	C	C	C	C
Castor Oil	A	A	A	A	A	A	A	A	A	B	B	A
Chlorine (Dry)	A	A	C	A	A	C	A	C	A	B	B	A
Chlorine (Wet)	C	B	C	B	B	C	C	C	C	B	C	B
Chloroform	B	B	B	B	B	B	C	B	C	C	C	C
Chromic Acid	C	B	C	C	C	C	B	C	C	C	C	B
Citric Acid	A	A	C	A	A	C	A	C	A	A	A	A
Clophen T64	B	B	B	B	B	B	B	B	A	C	C	B
Condensate	A	A	A	A	A	A	A	A	A	A	A	A
Copper Sulfate	A	A	A	A	A	A	A	A	A	A	A	A
Creosote	C	C	C	C	C	C	C	C	B	B	B	C
Cresol	B	B	B	B	B	B	B	B	B	B	B	B
Cyclohexanol	A	A	A	A	A	A	A	A	A	B	B	A
Decalin	A	A	A	A	A	A	A	A	B	C	C	A
Dibenzylether	C	C	C	C	C	C	C	C	C	C	C	C
Dibutylphthalate	A	A	A	A	A	A	A	A	B	C	C	A

<b>A:</b> Generally suitable* <b>B:</b> Generally suitable with sufficient surface stress. Do not expose to free immersion* <b>C:</b> Critical application. Do not use without contacting manufacturer * when proper assembly rules are followed	<b>C-4201</b>	<b>C-4300 C-4401</b>	<b>C-4408 C-4409</b>	<b>C-4324</b>	<b>C-4430 C-4433</b>	<b>C-4439</b>	<b>C-4500</b>	<b>C-4509</b>	<b>C-5400</b>	<b>C-6327 C-6400</b>	<b>C-7400</b>	<b>C-8200</b>
Diesel Oil	A	A	A	A	A	A	A	A	B	C	C	A
Dimethylformamide	C	C	C	C	C	C	C	C	C	C	C	C
Diphyl (Dowtherm A)	A	A	A	A	A	A	A	A	B	C	C	A
Dye Liquors (Alkaline, Neutral, Acid)	B	A	A	B	A	C	A	C	A	A	A	A
Ethane	A	A	C	A	B	C	A	C	A	A	A	A
Ethyl Acetate	B	B	B	B	B	B	B	B	B	B	B	B
Ethyl Alcohol (Ethanol)	A	A	A	A	A	A	A	A	A	A	A	A
Ethyl Chloride	B	B	B	B	B	B	B	B	B	C	C	B
Ethylene	A	A	C	A	A	C	A	C	A	A	A	A
Ethylene Chloride	C	C	C	C	C	C	C	C	B	B	A	A
Ethylene Glycol	A	A	A	A	A	A	A	A	A	A	A	A
Ethyl Ether	B	A	C	A	B	C	A	C	A	B	B	A
Formaldehyde	A	A	A	A	A	A	A	A	A	A	A	A
Formic Acid 10%	A	A	C	A	A	C	A	C	A	A	A	A
Formic Acid 85%	C	B	C	B	B	C	B	C	B	B	B	A
Freon 12	A	A	A	A	A	C	A	C	A	C	C	A
Freon 22	B	A	C	A	B	C	A	C	A	C	C	A
Glycerine	A	A	A	A	A	A	A	A	A	A	A	A
Heating Oil	A	A	A	A	A	A	A	A	B	C	C	A
Heptane	A	A	A	A	A	A	A	A	A	C	C	A
Hydraulic Oil (Glycol Base)	A	A	A	A	A	A	A	A	A	A	A	A
Hydraulic Oil (Mineral)	A	A	A	A	A	A	A	A	A	C	C	A
Hydraulic Oil (Phosphate Ester Based)	B	B	B	B	B	B	B	B	B	B	B	B
Hydrochloric Acid 20%	C	B	C	B	B	C	B	C	B	C	C	A
Hydrochloric Acid 37%	C	C	C	C	C	C	C	C	C	C	C	A
Hydrofluoric Acid 10%	C	C	C	C	C	C	C	C	B	C	C	A
Hydrofluoric Acid 40%	C	C	C	C	C	C	C	C	C	C	C	C

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Hydrogen	A	A	C	A	A	C	A	C	A	A	A	A
Hydrogen Chloride (Dry)	A	A	C	A	A	C	A	C	A	A	A	A
Hydrogen Peroxide (Up to 6% W.W.)	A	A	C	A	A	C	A	C	A	A	A	A
Iso-octane	A	A	A	A	A	A	A	A	A	B	B	A
Isopropyl Alcohol	A	A	A	A	A	A	A	A	A	A	A	A
Kerosene	A	A	A	A	A	A	A	A	A	C	C	A
Lactic Acid 50%	A	A	C	A	A	C	A	C	A	A	A	A
Linseed Oil	A	A	A	A	A	A	A	A	A	B	B	A
Magnesium Sulfate	A	A	A	A	A	A	A	A	A	A	A	A
Malic Acid	A	A	A	A	A	A	A	A	A	A	A	A
Methane	A	A	C	A	A	C	A	C	A	A	A	A
Methyl Alcohol	A	A	A	A	A	A	A	A	A	A	A	A
Methyl Chloride	B	B	B	B	B	C	B	C	B	C	C	B
Methylene Chloride	C	C	C	C	C	C	C	C	C	B	C	B
Methyl Ethyl Ketone	B	B	B	B	B	B	B	B	B	C	C	B
Mineral Oil	A	A	A	A	A	A	A	A	A	C	B	A
Mineral Oil, ASTM 1	A	A	A	A	A	A	A	A	A	B	B	A
Monochloromethane	B	B	C	B	B	C	B	C	B	C	C	B
Naphtha	A	A	A	A	A	A	A	A	B	C	C	A
Nitric Acid 20%	C	C	C	C	C	C	C	C	C	C	C	A
Nitric Acid 40%	C	C	C	C	C	C	C	C	C	C	C	A
Nitric Acid 96%	C	C	C	C	C	C	C	C	C	C	C	C
Nitrogen	A	A	A	A	A	A	A	A	A	A	A	A
Octane	A	A	A	A	A	A	A	A	B	C	B	A
Oleic Acid	A	A	A	A	A	A	A	A	A	A	A	A
Oxalic Acid	B	B	B	B	B	B	B	B	B	C	C	A
Palmitic Acid	A	A	A	A	A	A	A	A	A	A	A	A
Pentane	A	A	A	A	A	A	A	A	A	C	C	A

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Perchloroethylene	B	B	B	B	B	B	B	B	B	C	C	B
Petroleum	A	A	A	A	A	A	A	A	A	B	B	A
Petroleum Ether	A	A	A	A	A	A	A	A	A	B	B	A
Phenol	C	C	C	C	C	C	C	C	B	B	B	B
Phosphoric Acid	A	A	A	A	A	A	A	A	A	A	B	A
Phthalic Acid	A	A	A	A	A	A	A	A	A	A	A	A
Potassium Acetate	A	A	A	A	A	A	A	A	A	A	A	A
Potassium Carbonate	A	A	A	A	A	A	A	A	A	A	A	A
Potassium Chlorate	A	A	A	A	A	A	A	A	A	A	A	A
Potassium Chloride	A	A	A	A	A	A	A	A	A	A	A	A
Potassium Cyanide	A	A	A	A	A	A	A	A	A	A	A	A
Potassium Dichromate	A	A	A	A	A	A	A	A	A	A	A	A
Potassium Hydroxide	C	B	B	C	B	B	A	A	B	B	B	A
Potassium Hypochlorite	A	A	A	A	A	A	A	A	A	A	A	A
Potassium Nitrate	A	A	A	A	A	A	A	A	A	A	A	A
Potassium Permanganate	A	A	A	A	A	A	A	A	A	A	A	A
Producer Gas	A	A	C	A	B	C	A	C	A	B	A	A
Propane	A	A	C	A	B	C	A	C	A	B	B	A
Pydrol	A	A	A	A	A	A	A	A	A	C	C	B
Pyridine	C	C	C	C	C	C	C	C	C	B	B	C
Rape Seed Oil	A	A	A	A	A	A	A	A	A	B	B	B
Sea Water	A	A	B	A	A	B	A	B	A	A	A	A
Silicone Oil	A	A	A	A	A	A	A	A	A	A	A	A
Sodium Aluminate	A	A	A	A	A	A	A	A	A	A	A	A
Sodium Bicarbonate	A	A	A	A	A	A	A	A	A	A	A	A
Sodium Bisulphite	A	A	B	A	A	B	A	B	A	A	A	A
Sodium Chloride	A	A	A	A	A	A	A	A	A	A	A	A
Sodium Hydroxide	C	B	B	C	B	B	A	A	B	B	A	A

<b>A:</b> Generally suitable* <b>B:</b> Generally suitable with sufficient surface stress. Do not expose to free immersion* <b>C:</b> Critical application. Do not use without contacting manufacturer * when proper assembly rules are followed	<b>C-4201</b>	<b>C-4300</b> <b>C-4401</b>	<b>C-4408</b> <b>C-4409</b>	<b>C-4324</b>	<b>C-4430</b> <b>C-4433</b>	<b>C-4439</b>	<b>C-4500</b>	<b>C-4509</b>	<b>C-5400</b>	<b>C-6327</b> <b>C-6400</b>	<b>C-7400</b>	<b>C-8200</b>
Sodium Silicate	A	A	A	A	A	A	A	A	A	A	A	A
Sodium Sulphate	A	A	A	A	A	A	A	A	A	A	A	A
Sodium Sulphide	A	A	A	A	A	A	A	A	A	A	A	A
Steam	C	B	A	B	A	A	A	A	B	B	B	B
Stearic Acid	A	A	A	A	A	A	A	A	A	A	A	A
Sulphur Dioxide	C	C	C	C	C	C	B	C	B	B	B	A
Sulphuric Acid 20%	C	C	C	C	C	C	C	C	B	C	C	A
Sulphuric Acid 50%	C	C	C	C	C	C	C	C	C	C	C	A
Sulphuric Acid 96%	C	C	C	C	C	C	C	C	C	C	C	A
Sulphurous Acid	C	B	C	C	C	C	B	C	B	B	B	B
Tannic Acid	A	A	A	A	A	A	A	A	A	A	A	A
Tartaric Acid	A	A	A	A	A	A	A	A	A	A	A	A
Tetrachlorethane	B	B	B	B	B	B	B	B	B	C	C	B
Tetralin	A	A	A	A	A	A	A	A	B	C	C	A
Toluene	A	A	A	A	A	A	A	A	B	C	C	A
Town's Gas	A	A	C	A	A	C	A	C	A	B	B	A
Transformer Oil	A	A	A	A	A	A	A	A	A	B	B	B
Trichlorethylene	B	B	B	B	B	B	B	B	B	C	C	B
Turpentine	A	A	A	A	A	A	A	A	B	C	C	B
Vinyl Acetate	A	A	A	A	A	A	A	A	B	C	C	A
Water	A	A	A	A	A	A	A	A	A	A	A	A
White Spirit	A	A	A	A	A	A	A	A	A	C	C	A
Xylene	A	A	A	A	A	A	A	A	B	C	C	A

The ability of a gasket to make and maintain a seal depends not only on the style and quality of the gasket material, but also on temperature, pressure, medium being sealed, the flange design, the amount of pressure applied to the gasket by the bolts and how the gasket is assembled onto the flanges and tightened. These factors are beyond the manufacturer's control.

# KLINGER® FLEXIBLE GRAPHITE LAMINATE GASKET MATERIALS

## Chemical Compatibility Chart

Flexible graphite exhibits a high resistance to most agents including inorganic and organic acids and bases, solvents, hot wax, and oils. Exceptions are strong oxidizing compounds such as concentrated nitric acids, highly concentrated sulfuric acid, chromium (VI) and permanganate solutions, chloric acids, and molten alkaline and alkaline earth metals.

The information in this chart should only be used as a general rule to the selection of a suitable material.

MEDIUM	CONCENTRATION	MAXIMUM SAFE OPERATING TEMPERATURE
<b>Inorganic Acids</b>		
Hydrochloric Acid	all	boiling point
Hydrofluoric Acid	all	boiling point
Phosphoric Acid	all	boiling point
Sulphuric Acid	0-70%	boiling point
Chromic Acid	0-10%	392°F (200°C)
Nitric Acid	0-10%	185°F (85°C)
Nitric Acid	10-20%	140°F (60°C)
Nitric Acid	over 20%	104°F (0°C)
<b>Organic Acids</b>		
Phenylsulfonic Acid	60%	boiling point
Acetic Acid	all	boiling point
Acetic Anhydride	100%	boiling point
Chloroacetic Acid	all	boiling point
Amino Acid	all	boiling point
<b>Alkalis</b>		
Caustic Soda	all	boiling point
Sodium Hydroxide	solid	melting point

<b>MEDIUM</b>	<b>CONCENTRATION</b>	<b>MAXIMUM SAFE OPERATING TEMPERATURE</b>
<b>Solvents</b>		
Benzene & Homologues	0-100%	boiling point
Ethers	0-100%	boiling point
Alcohols	0-100%	boiling point
Esters	0-100%	boiling point
Ketones	0-100%	boiling point
Halogenated Hydrocarbons	0-100%	boiling point
Vinyl Chloride	0-100%	boiling point
Mineral Oils	0-100%	boiling point

The ability of a gasket to make and maintain a seal depends not only on the style and quality of the gasket material, but also on temperature, pressure, medium being sealed, the flange design, the amount of pressure applied to the gasket by the bolts and how the gasket is assembled onto the flanges and tightened. These factors are beyond the manufacturer's control.



# KLINGER® MILAM MICA LAMINATE MATERIALS

## Chemical Compatibility Chart

The information in this chart should only be used as a general rule to the selection of a suitable material.

<b>A:</b> Generally suitable* <b>B:</b> Minor-moderate effect* <b>C:</b> Unsuitable * when proper assembly rules are followed	MILAM
Acetaldehyde	B
Acetamide	B
Acetic Acid 10%	A
Acetic Acid 100%	A
Acetone	B
Acetylene	B
Adipic Acid	A
Air	A
Alum	A
Aluminum Acetate	A
Aluminum Chlorate	A
Aluminum Chloride	A
Ammonia	A
Ammonium Carbonate	A
Ammonium Chloride	A
Ammonium Diphosphate	A
Ammonium Hydroxide	A
Amyl Acetate	A
Aniline	B
Arcton 12	C
Arcton 22	C
Asphalt	A
Barium Chloride	A
Benzene	B

<b>A:</b> Generally suitable* <b>B:</b> Minor-moderate effect* <b>C:</b> Unsuitable * when proper assembly rules are followed	MILAM
Benzoic Acid	A
Blast Furnace Gas	A
Bleach Liquor	A
Borax	A
Boric Acid	A
Butanole	B
Butanone (MEK)	B
Butyl Acetate	B
Butyl Alcohol (Butanol)	B
Butyle Amine	B
Butyric Acid	B
Calcium Chloride	A
Calcium Hydroxide	A
Calcium Hypochlorite	A
Calcium Sulfate	A
Carbon Dioxide	A
Carbon Disulfide	B
Carbon Tetrachloride	B
Castor Oil	A
Chlorine (Dry)	B
Chloroform	B
Chromic Acid	B
Citric Acid	A
Condensate	A

<b>A:</b> Generally suitable* <b>B:</b> Minor-moderate effect* <b>C:</b> Unsuitable * when proper assembly rules are followed	MILAM
Copper Acetate	A
Copper Sulfate	A
Cresole	A
Crude Oil	A
Cyclohexanol	A
Cyclohexanone Erdgas	B
Decalin	A
Dibenzylether	B
Dibutylphthalate	A
Diphyl (Dowtherm A)	B
Ethane	A
Ethyl Acetate	B
Ethyl Alcohol (Ethanol)	B
Ethyl Chloride	B
Ethyl Ether	B
Ethylene	B
Ethylene Chloride	B
Ethylene Diamine	B
Ethylene Glycol	A
Fatty Acids	A
Formaldehyde	B
Formic Acid	A
Formic Acid Amide	B
Freon 12	C
Freon 22	C
Fuel (Acid)	A
Gasoline	B
Glycerine	A
Heating Oil	B
Hexachlorobenzene	A
Hydraulic Oil	A

<b>A:</b> Generally suitable* <b>B:</b> Minor-moderate effect* <b>C:</b> Unsuitable * when proper assembly rules are followed	MILAM
Hydrazine Hydrate	A
Hydrochloric Acid (Dry)	A
Hydrochloric Acid (Aqueous)	A
Hydrochloric Acid 20%	A
Hydrochloric Acid 37%	A
Hydrogen	A
Hydrofluoric Acid 10%	A
Hydrofluoric Acid 40%	B
Hydrogen Peroxide (Up to 6% W.W.)	A
Iso-octane	A
Isopropyl Alcohol	B
Kerosene	A
Lactic Acid 50%	A
Lead Acetate	A
Lead Arsenate	A
Linseed Oil	A
Luminescent Gas	B
Magnesium Sulfate	A
Malic Acid	A
Methane	B
Methyl Alcohol	B
Methyl Chloride	B
Methylene Chloride	B
Methyl Ethyl Ketone	B
Mineral Oils	A
Monochloromethane	B
Natural Gas	B
Nitric Acid 20%	A
Nitric Acid 40%	A
Nitric Acid 96%	A

<b>A:</b> Generally suitable* <b>B:</b> Minor-moderate effect* <b>C:</b> Unsuitable * when proper assembly rules are followed	<b>MILAM</b>
Nitrobenzene	A
Nitrogen	A
Octane	A
Oleic Acid	A
Oleum	A
Oxalic Acid	A
Oxygen	A
Paint Thinner	A
Palmitic Acid	A
Pentane	A
Perchlorethylene	B
Petroleum	A
Petroleum Ether	B
Phenol	A
Phosphoric Acid	A
Phthalic Acid	A
Potassium Acetate	A
Potassium Carbonate	A
Potassium Chlorate	A
Potassium Chloride	A
Potassium Chromosulfate	A
Potassium Cyanide	A
Potassium Dichromate	A
Potassium Hydroxide	A
Potassium Hypochlorite	A
Potassium Iodide	A
Potassium Nitrate	A
Potassium Permanganate	A
Propane	A
Pyridine	B
Rape Seed Oil	A

<b>A:</b> Generally suitable* <b>B:</b> Minor-moderate effect* <b>C:</b> Unsuitable * when proper assembly rules are followed	<b>MILAM</b>
Salicylic Acid	A
Sea Water	A
Silicones	A
Skydrol 500	A
Soaps	A
Sodium Aluminate	A
Sodium Bicarbonate	A
Sodium Bisulphite	A
Sodium Carbonate	A
Sodium Chloride	A
Sodium Hydroxide	A
Sodium Silicate	A
Sodium Sulphate	A
Spirit	A
Starch	A
Steam	A
Stearic Acid	A
Sugar	A
Sulphur Dioxide	A
Sulphuric Acid 20%	C
Sulphuric Acid 50%	C
Sulphuric Acid 96%	C
Sulphurous Acid	A
Tannic Acid	A
Tar	A
Tartaric Acid	A
Tetrachlorethane	B
Tetralin	A
Toluene	A
Transformer Oils	A
Trichlorethylene	B

<b>A:</b> Generally suitable* <b>B:</b> Minor-moderate effect* <b>C:</b> Unsuitable * when proper assembly rules are followed	<b>MILAM</b>
Triethanolamine	A
Turpentine	A
Urea	A

<b>A:</b> Generally suitable* <b>B:</b> Minor-moderate effect* <b>C:</b> Unsuitable * when proper assembly rules are followed	<b>MILAM</b>
Vinyl Acetate	A
Water	A
Xylene	A

The ability of a gasket to make and maintain a seal depends not only on the style and quality of the gasket material, but also on temperature, pressure, medium being sealed, the flange design, the amount of pressure applied to the gasket by the bolts and how the gasket is assembled onto the flanges and tightened. These factors are beyond the manufacturer’s control.

# KLINGER® PTFE GASKET MATERIALS

## Chemical Compatibility Chart

The information in this chart should only be used as a general rule to the selection of a suitable material.

<b>A: Suitable*</b> <b>B: Minor-moderate effect*</b> <b>C: Unsuitable</b> * when proper assembly rules are followed - No data; effect unknown	KLINGER® top-chem 2000	KLINGER® top-chem 2003 & KLINGER®tc-1003	KLINGER® top-chem 2005 & KLINGER®tc-1005	KLINGER® top-chem 2006 & KLINGER®tc-1006	Soft-chem & Sealex
Abietic Acid	A	A	A	A	A
Acetaldehyde	A	A	A	A	A
Acetamide	A	A	A	A	A
Acetic Acid	A	A	A	A	A
Acetic Acid Ester	A	A	A	A	A
Acetic Anhydride	A	A	A	A	A
Acetone	A	A	A	A	A
Acetophenone	A	A	A	A	A
Acetylene	A	A	A	A	A
Acrylic Anhydride	A	A	A	A	A
Adipic Acid	A	A	A	A	A
Air	A	A	A	A	A
Allyl Acetate	A	A	A	A	A
Allyl Methacrylate	A	A	A	A	A
Alum	A	A	A	A	A
Aluminum Acetate	A	A	A	A	A
Aluminum Chlorate	A	A	A	A	A
Aluminum Chloride	A	A	A	A	A
Aluminum Fluoride	A	-	C	A	A
Aluminum Hydroxide	A	A	A	A	A
Aluminum Nitrate	A	A	A	A	A
Aluminum Sulfate	A	A	A	A	A
Alums	A	A	A	A	A

<b>A: Suitable*</b> <b>B: Minor-moderate effect*</b> <b>C: Unsuitable</b> * when proper assembly rules are followed - No data; effect unknown	<b>KLINGER® top-chem 2000</b>	<b>KLINGER® top-chem 2003 &amp; KLINGER®tc-1003</b>	<b>KLINGER® top-chem 2005 &amp; KLINGER®tc-1005</b>	<b>KLINGER® top-chem 2006 &amp; KLINGER®tc-1006</b>	<b>Soft-chem &amp; Sealex</b>
Ammonia	A	A	B (< 212°F)	A	A
Ammonium Carbonate	A	A	A	A	A
Ammonium Chloride	A	A	A	A	A
Ammonium Disphosphate	A	A	A	A	A
Ammonium Hydroxide	A	A	A	A	A
Ammonium Nitrate	A	A	A	A	A
Ammonium Phosphate	A	A	A	A	A
Ammonium Sulfate	A	A	A	A	A
Amyl Acetate	A	A	A	A	A
Amyl Alcohol	A	A	A	A	A
Aniline	A	A	A	A	A
Anon Cyclohexanone	A	A	A	A	A
Aqua Regia	A	A	A	A	A
Arcton 12	A	A	A	A	A
Arcton 22	A	A	A	A	A
Asphalt	A	A	A	A	A
Aviation Fuel	A	A	A	A	A
Barium Chloride	A	A	A	A	A
Barium Hydroxide	A	A	A	A	A
Barium Sulfide	A	A	A	A	A
Beer	A	A	A	A	A
Benzaldehyde	A	A	A	A	A
Benzene	A	A	A	A	A
Benzoic Acid	A	A	A	A	A
Benzonitrile	A	A	A	A	A
Benzoyl Alcohol	A	A	A	A	A
Benzoyl Chloride	A	A	A	A	A

<b>A: Suitable*</b> <b>B: Minor-moderate effect*</b> <b>C: Unsuitable</b> * when proper assembly rules are followed - No data; effect unknown	<b>KLINGER® top-chem 2000</b>	<b>KLINGER® top-chem 2003 &amp; KLINGER®tc-1003</b>	<b>KLINGER® top-chem 2005 &amp; KLINGER®tc-1005</b>	<b>KLINGER® top-chem 2006 &amp; KLINGER®tc-1006</b>	<b>Soft-chem &amp; Sealex</b>
Black Sulfate Liquor	A	C	B	A	A
Blast Furnace Gas	A	A	A	A	A
Bleach	A	A	A	A	A
Bleaching Solution	A	A	A	A	A
Boiler Feed Water	A	A	A	A	A
Borax	A	A	A	A	A
Boric Acid	A	A	A	A	A
Brine	A	A	A	A	A
Bromine	A	A	A	A	A
Bromine Trifluoride	C	C	C	C	C
Butadiene	A	A	A	A	A
Butane	A	A	A	A	A
Butanol	A	A	A	A	A
Butanone	A	A	A	A	A
Butanone (MEK)	A	A	A	A	A
Butyl Acetate	A	A	A	A	A
Butyl Acetate	A	A	A	A	A
Butyl Alcohol	A	A	A	A	A
Butyl Methacrylate	A	A	A	A	A
Butylamine	A	A	A	A	A
Butyric Acid	A	A	A	A	A
Caesium Melt	C	C	C	C	C
Calcium Bisulfite	A	A	A	A	A
Calcium Chloride	A	A	A	A	A
Calcium Hydroxide	A	A	A	A	A
Calcium Hypochlorite	A	A	A	A	A
Calcium Sulphate	A	A	A	A	A

<b>A: Suitable*</b> <b>B: Minor-moderate effect*</b> <b>C: Unsuitable</b> * when proper assembly rules are followed - No data; effect unknown	<b>KLINGER® top-chem 2000</b>	<b>KLINGER® top-chem 2003 &amp; KLINGER®tc-1003</b>	<b>KLINGER® top-chem 2005 &amp; KLINGER®tc-1005</b>	<b>KLINGER® top-chem 2006 &amp; KLINGER®tc-1006</b>	<b>Soft-chem &amp; Sealex</b>
Caprolactam	A	A	A	A	A
Carbolic Acid	A	A	A	A	A
Carbon Dioxide	A	A	A	A	A
Carbon Disulphide	A	A	A	A	A
Carbon Monoxide	A	A	A	A	A
Carbon Tetrachloride	A	A	A	A	A
Carbonic Acid	A	A	A	A	A
Castor Oil	A	A	A	A	A
Cetane (Hexadecane)	A	A	A	A	A
Chlorazotic Acid	A	A	A	A	A
Chlorinated Solvents	A	A	A	A	A
Chlorine (Dry)	A	A	A	A	A
Chlorine (Wet)	A	A	A	A	A
Chlorine Dioxide	A	A	A	A	A
Chlorine Trifluoride	C	C	C	C	C
Chlorine Water	A	A	A	A	A
Chloroacetic Acid	A	A	A	A	A
Chloroazotic Acid	A	A	A	A	A
Chloroethylene	A	A	A	A	A
Chloroform	A	A	A	A	A
Chloronitrous Acid	A	A	A	A	A
Chlorosulfonic Acid	A	A	A	A	A
Chromic Acid	A	A	A	A	A
Chromic Anhydride	A	A	A	A	A
Chromium Trioxide	A	A	A	A	A
Citric Acid	A	A	A	A	A
Clorotrifluoride	C	C	C	C	C



<b>A: Suitable*</b> <b>B: Minor-moderate effect*</b> <b>C: Unsuitable</b> * when proper assembly rules are followed - No data; effect unknown	<b>KLINGER® top-chem 2000</b>	<b>KLINGER® top-chem 2003 &amp; KLINGER®tc-1003</b>	<b>KLINGER® top-chem 2005 &amp; KLINGER®tc-1005</b>	<b>KLINGER® top-chem 2006 &amp; KLINGER®tc-1006</b>	<b>Soft-chem &amp; Sealex</b>
Coal Tar	A	A	A	A	A
Condensation Water	A	A	A	A	A
Copper Acetate	A	A	A	A	A
Copper Chloride	A	A	A	A	A
Copper Sulfate	A	A	A	A	A
Copper Sulphate	A	A	A	A	A
Creosote	A	A	A	A	A
Cresol	A	A	A	A	A
Crude Oil	A	A	A	A	A
Cyclohexana	A	A	A	A	A
Cyclohexanol	A	A	A	A	A
Cyclohexanone	A	A	A	A	A
Decahydronaphtalene	A	A	A	A	A
Dibenzyl Ether	A	A	A	A	A
Dibutyl Phthalate	A	A	A	A	A
Dibutyl Sebacate	A	A	A	A	A
Diesel Oil	A	A	A	A	A
Diethyl Carbonate	A	A	A	A	A
Dimethyl Ether	A	A	A	A	A
Dimethyl Formamide	A	A	A	A	A
Dioxane	A	A	A	A	A
Diphyl	A	A	A	A	A
Dye Bath	A	A	A	A	A
Ethane	A	A	A	A	A
Ethanol	A	A	A	A	A
Ethers	A	A	A	A	A
Ethyl Acetate	A	A	A	A	A

<b>A: Suitable*</b> <b>B: Minor-moderate effect*</b> <b>C: Unsuitable</b> * when proper assembly rules are followed - No data; effect unknown	<b>KLINGER® top-chem 2000</b>	<b>KLINGER® top-chem 2003 &amp; KLINGER®tc-1003</b>	<b>KLINGER® top-chem 2005 &amp; KLINGER®tc-1005</b>	<b>KLINGER® top-chem 2006 &amp; KLINGER®tc-1006</b>	<b>Soft-chem &amp; Sealex</b>
Ethyl Acetate	A	A	A	A	A
Ethyl Alcohol	A	A	A	A	A
Ethyl Cellulose	A	A	A	A	A
Ethyl Chloride	A	A	A	A	A
Ethyl Ether	A	A	A	A	A
Ethyl Hexoate	A	A	A	A	A
Ethylendiamine	A	A	A	A	A
Ethylene	A	A	A	A	A
Ethylene Bromide	A	A	A	A	A
Ethylene Chloride	A	A	A	A	A
Ethylene Glycol	A	A	A	A	A
Ethylene Oxide	A	A	A	A	A
Ferric Chloride	A	A	A	A	A
Ferric Phosphate	A	A	A	A	A
Ferric Sulfate	A	A	A	A	A
Fluorine (Gas)	C	C	C	C	C
Fluorine (Liquid)	C	C	C	C	C
Fluorine Dioxide	C	C	C	C	C
Fluorosilicic Acid	C	C	C	C	C
Formaldehyde	A	A	A	A	A
Formaldehyde	A	A	A	A	A
Formamide	A	A	A	A	A
Formic Acid	A	A	A	A	A
Freon 12	A	A	A	A	A
Freon 22	A	A	A	A	A
Generator Gas	A	A	A	A	A
Glacial Acetic Acid	A	A	A	A	A

<b>A: Suitable*</b> <b>B: Minor-moderate effect*</b> <b>C: Unsuitable</b> * when proper assembly rules are followed - No data; effect unknown	<b>KLINGER® top-chem 2000</b>	<b>KLINGER® top-chem 2003 &amp; KLINGER®tc-1003</b>	<b>KLINGER® top-chem 2005 &amp; KLINGER®tc-1005</b>	<b>KLINGER® top-chem 2006 &amp; KLINGER®tc-1006</b>	<b>Soft-chem &amp; Sealex</b>
Glycerine	A	A	A	A	A
Green Sulfate Liquor	A	C	B	A	A
Heating Oil	A	A	A	A	A
Heptane	A	A	A	A	A
Hexachloroethane	A	A	A	A	A
Hexane	A	A	A	A	A
Hydraulic Oil	A	A	A	A	A
Hydraulic Oil 2	A	A	A	A	A
Hydraulic Oil 3	A	A	A	A	A
Hydrazine Hydrate	A	A	A	A	A
Hydrobromic Acid	A	A	A	A	A
Hydrochloric Acid	A	A	A	A	A
Hydrocyanic Acid	A	A	A	A	A
Hydrofluoric Acid (up to 212°F)	B	B	C	A	A
Hydrofluoric Acid (Anhydrous)	C	C	C	C	C
Hydrofluorosilicic Acid	A	C	C	A	A
Hydrofluosilicic Acid	A	C	C	A	A
Hydrogen	A	A	A	A	A
Hydrogen Chloride	A	A	A	A	A
Hydrogen Fluoride	C	C	C	C	C
Hydrogen Gas	A	A	A	A	A
Hydrogen Peroxide	A	A	A	A	A
Hydrogen Sulfide	A	A	A	A	A
Isobutane	A	A	A	A	A
Isooctane	A	A	A	A	A
Isopropyl Alcohol	A	A	A	A	A
Jet Fuels	A	A	A	A	A

<b>A: Suitable*</b> <b>B: Minor-moderate effect*</b> <b>C: Unsuitable</b> * when proper assembly rules are followed - No data; effect unknown	<b>KLINGER® top-chem 2000</b>	<b>KLINGER® top-chem 2003 &amp; KLINGER®tc-1003</b>	<b>KLINGER® top-chem 2005 &amp; KLINGER®tc-1005</b>	<b>KLINGER® top-chem 2006 &amp; KLINGER®tc-1006</b>	<b>Soft-chem &amp; Sealex</b>
Kerosene	A	A	A	A	A
Lactic Acid	A	A	A	A	A
Lead Acetate	A	A	A	A	A
Lead Arsenate	A	A	A	A	A
Linseed Oil	A	A	A	A	A
Lithium Melt	C	C	C	C	C
Magnesium Chloride	A	A	A	A	A
Magnesium Hydroxide	A	A	A	A	A
Magnesium Sulfate	A	A	A	A	A
Magnesium Sulphate	A	A	A	A	A
Malic Acid	A	A	A	A	A
Mercuric Chloride	A	A	A	A	A
Mercury	A	A	A	A	A
Methane	A	A	A	A	A
Methacrylic Acid	A	A	A	A	A
Methyl Alcohol	A	A	A	A	A
Methyl Cethacrylate	A	A	A	A	A
Methyl Chloride	A	A	A	A	A
Methyl Ethyl Ketone	A	A	A	A	A
Methylene Chloride	A	A	A	A	A
Mineral Oil No. 1	A	A	A	A	A
Mineral Oil No. 2	A	A	A	A	A
Monochlorethane	A	A	A	A	A
Muriatic Acid	A	A	A	A	A
Naphtha	A	A	A	A	A
Naphthalene	A	A	A	A	A
Naphthols	A	A	A	A	A

<b>A: Suitable*</b> <b>B: Minor-moderate effect*</b> <b>C: Unsuitable</b> * when proper assembly rules are followed - No data; effect unknown	<b>KLINGER® top-chem 2000</b>	<b>KLINGER® top-chem 2003 &amp; KLINGER®tc-1003</b>	<b>KLINGER® top-chem 2005 &amp; KLINGER®tc-1005</b>	<b>KLINGER® top-chem 2006 &amp; KLINGER®tc-1006</b>	<b>Soft-chem &amp; Sealex</b>
Natural Gas	A	A	A	A	A
N-Butyl Amine	A	A	A	A	A
Nickel Chloride	A	A	A	A	A
Nickel Sulfate	A	A	A	A	A
Nitric Acid	A	A	A	A	A
Nitrobenzene	A	A	A	A	A
Nitrocalcite (Calcium Nitrate)	A	A	A	A	A
Nitrogen	A	A	A	A	A
Nitrogen Tetroxide	A	A	A	A	A
Nitrohydrochloric Acid	A	A	A	A	A
Nitromethane	A	A	A	A	A
Nitromuriatic Acid	A	A	A	A	A
N-Octadecyl Alcohol	A	A	A	A	A
Octane	A	A	A	A	A
Oil	A	A	A	A	A
Oleanolic Acid	A	A	A	C	A
Oleic Acid	A	A	A	A	A
Oleum	A	-	C	C	A
Oxalic Acid	A	A	A	A	A
Oxygen	A	A	A	A	A
Palmitic Acid	A	A	A	A	A
Paraffin	A	A	A	A	A
Pentachlorophenol	A	A	A	A	A
Pentane	A	A	A	A	A
Perchloric Acid	A	A	A	A	A
Perchloroethylene	A	A	A	A	A
Petroleum	A	A	A	A	A

<b>A: Suitable*</b> <b>B: Minor-moderate effect*</b> <b>C: Unsuitable</b> * when proper assembly rules are followed - No data; effect unknown	<b>KLINGER® top-chem 2000</b>	<b>KLINGER® top-chem 2003 &amp; KLINGER®tc-1003</b>	<b>KLINGER® top-chem 2005 &amp; KLINGER®tc-1005</b>	<b>KLINGER® top-chem 2006 &amp; KLINGER®tc-1006</b>	<b>Soft-chem &amp; Sealex</b>
Petroleum Benzin	A	A	A	A	A
Petroleum Ether	A	A	A	A	A
Phenol	A	A	A	A	A
Phosphoric Acid (Pure; < 45%)	A	A	A	A	A
Phosphoric Acid (Pure; > 45%, < 150°F)	A	B	B	A	A
Phosphoric Acid (Pure; > 45%, > 150°F)	B	B	C	A	A
Phosphorus-Pentachloride	A	A	A	A	A
Phthalic Acid	A	A	A	A	A
Pinene	A	A	A	A	A
Piperidene	A	A	A	A	A
Polyacrylonitrile	A	A	A	A	A
Polychlorinated Biphenyls	A	A	A	A	A
Potassium Acetate	A	A	A	A	A
Potassium Bichromate	A	A	A	A	A
Potassium Carbonate	A	A	B	A	A
Potassium Chlorate	A	A	A	A	A
Potassium Chloride	A	A	A	A	A
Potassium Chromate (Red)	A	A	A	A	A
Potassium Chromium Sulphate	A	A	A	A	A
Potassium Cyanide	A	A	A	A	A
Potassium Dichromate	A	A	A	A	A
Potassium Hydroxide	A	A	C	A	A
Potassium Hypochlorite	A	A	A	A	A
Potassium Iodide	A	A	A	A	A
Potassium Melt	C	C	C	C	C
Potassium Nitrate	A	A	A	A	A
Potassium Nitrite	A	A	A	A	A

<b>A: Suitable*</b> <b>B: Minor-moderate effect*</b> <b>C: Unsuitable</b> * when proper assembly rules are followed - No data; effect unknown	<b>KLINGER® top-chem 2000</b>	<b>KLINGER® top-chem 2003 &amp; KLINGER®tc-1003</b>	<b>KLINGER® top-chem 2005 &amp; KLINGER®tc-1005</b>	<b>KLINGER® top-chem 2006 &amp; KLINGER®tc-1006</b>	<b>Soft-chem &amp; Sealex</b>
Potassium Permanganate	A	A	A	A	A
Potassium Sulfate	A	A	A	A	A
Propane	A	A	A	A	A
Propyl Nitrate	A	A	A	A	A
Propylene	A	A	A	A	A
Prussic Acid	A	A	A	A	A
Pydraul	A	A	A	A	A
Pyridine	A	A	A	A	A
Rape Seed Oil	A	A	A	A	A
Rubidium Melt	C	C	C	C	C
Salicylic Acid	A	A	A	A	A
Sea Water	A	A	A	A	A
Silicon Oil	A	A	A	A	A
Silver Nitrate	A	A	A	A	A
Skydrol 500	A	A	A	A	A
Soap	A	A	A	A	A
Soda	A	A	C	A	A
Sodium Aluminate	A	A	A	A	A
Sodium Bicarbonate	A	A	A	A	A
Sodium Bisulphate	A	A	A	A	A
Sodium Bisulphite	A	A	A	A	A
Sodium Chloride	A	A	A	A	A
Sodium Cyanide	A	A	A	A	A
Sodium Dioxide	A	A	A	A	A
Sodium Hydroxide	A	A	C	A	A
Sodium Hypochlorite	A	A	A	A	A
Sodium Melt	C	C	C	C	C

<b>A: Suitable*</b> <b>B: Minor-moderate effect*</b> <b>C: Unsuitable</b> * when proper assembly rules are followed - No data; effect unknown	<b>KLINGER® top-chem 2000</b>	<b>KLINGER® top-chem 2003 &amp; KLINGER®tc-1003</b>	<b>KLINGER® top-chem 2005 &amp; KLINGER®tc-1005</b>	<b>KLINGER® top-chem 2006 &amp; KLINGER®tc-1006</b>	<b>Soft-chem &amp; Sealex</b>
Sodium Metaborate-Peroxyhydrate	A	A	A	A	A
Sodium Metaphosphate	A	A	A	A	A
Sodium Nitrate	A	A	A	A	A
Sodium Perborate	A	A	A	A	A
Sodium Peroxide	A	A	A	A	A
Sodium Phosphate, Dibasic	A	A	A	A	A
Sodium Phosphate, Monobasic	A	A	A	A	A
Sodium Phosphate, Tribasic	A	B	A	A	A
Sodium Silicate	A	A	A	A	A
Sodium Sulfide	A	A	A	A	A
Sodium Sulphate	A	A	A	A	A
Sodium Superoxide	A	A	A	A	A
Sodium Thiosulfate	A	A	A	A	A
Spinning Baths	A	A	A	A	A
Spirit	A	A	A	A	A
Stannic Chloride	A	A	A	A	A
Starch	A	A	A	A	A
Steam	A	A	A	A	A
Stearic Acid	A	A	A	A	A
Styrene	A	A	A	A	A
Sugar	A	A	A	A	A
Sulphur Chloride	A	A	A	A	A
Sulphur Dioxide	A	A	A	A	A
Sulphur Trioxide (Dry)	A	A	A	A	A
Sulphuric Acid	A	A	A	C	A
Sulphurous Acid	A	A	A	A	A
Table Salt	A	A	A	A	A



<b>A: Suitable*</b> <b>B: Minor-moderate effect*</b> <b>C: Unsuitable</b> * when proper assembly rules are followed - No data; effect unknown	<b>KLINGER® top-chem 2000</b>	<b>KLINGER® top-chem 2003 &amp; KLINGER®tc-1003</b>	<b>KLINGER® top-chem 2005 &amp; KLINGER®tc-1005</b>	<b>KLINGER® top-chem 2006 &amp; KLINGER®tc-1006</b>	<b>Soft-chem &amp; Sealex</b>
Tannic Acid	A	A	A	A	A
Tannin	A	A	A	A	A
Tar	A	A	A	A	A
Tartaric Acid	A	A	A	A	A
Tetrabromoethane	A	A	A	A	A
Tetrachloroethane	A	A	A	A	A
Tetrachloroethylene	A	A	A	A	A
Tetrahydronaphthale	A	A	A	A	A
Toluene	A	A	A	A	A
Town Gas	A	A	A	A	A
Transformer Oil	A	A	A	A	A
Trichloroacetic Acid	A	A	A	A	A
Trichloroethylene	A	A	A	A	A
Tricresyl Phosphate	A	A	A	A	A
Triethanolamine	A	A	A	A	A
Turpentine	A	A	A	A	A
Urea	A	A	A	A	A
Vinyl Acetate	A	A	A	A	A
Vinyl Chloride	A	A	A	A	A
Water	A	A	A	A	A
Water Solution	A	A	A	A	A
Water Vapor	A	A	A	A	A
Water, Acid Mine (no Oxidizing Salts)	A	A	A	A	A
Water, Acid Mine (w/ Oxidizing Salts)	A	A	A	A	A
White Spirit	A	A	A	A	A
Xylene	A	A	A	A	A
Zinc Chloride	A	A	A	A	A

<b>A: Suitable*</b> <b>B: Minor-moderate effect*</b> <b>C: Unsuitable</b> * when proper assembly rules are followed - No data; effect unknown	<b>KLINGER® top-chem 2000</b>	<b>KLINGER® top-chem 2003 &amp; KLINGER®tc-1003</b>	<b>KLINGER® top-chem 2005 &amp; KLINGER®tc-1005</b>	<b>KLINGER® top-chem 2006 &amp; KLINGER®tc-1006</b>	<b>Soft-chem &amp; Sealex</b>
Zinc Sulfate	A	A	A	A	A
2-Nitro-2-Methyl-Propanol	A	A	A	A	A
2-Nitro-Butanol	A	A	A	A	A

The ability of a gasket to make and maintain a seal depends not only on the style and quality of the gasket material, but also on temperature, pressure, medium being sealed, the flange design, the amount of pressure applied to the gasket by the bolts and how the gasket is assembled onto the flanges and tightened. These factors are beyond the manufacturer's control.