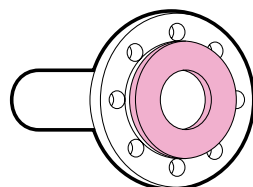




# KLINGERSIL®

## Chemical resistance table

*The chemical resistance table serves as a guide for the resistance to media of all asbestos-free gaskets. All information is provided in accordance with the current state of knowledge and subject to alteration. If in doubt, please use our free technical fax service. Details are given inside.*



*KLINGER – The global leader in static sealing*



# Chemical resistance table

| Medium  | Chemical formula   | Gasket material |                |        |        |        |        |        |        |        |        |        |        |
|---|--|-----------------|----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|   |  | Top-sil-ML 1    | Top-graph 2000 | C-4106 | C-4300 | C-4400 | C-4430 | C-4500 | C-6307 | C-8200 | C-4408 | C-4409 | C-4509 |
| <b>A</b> cetaldehyde                              | CH <sub>3</sub> CHO  | ■               | ■              | ■      | ■      | ■      | ■      | ■      | ●      | ■      | ■      | ■      | ■      |
| Acetamide   | CH <sub>3</sub> CONH <sub>2</sub>                                  | ●               | ●              | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      |
| Acetic acid 10%                                   | CH <sub>3</sub> COOH   | ●               | ●              | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      |
| Acetic acid 100% (glacial acetic acid)            | CH <sub>3</sub> COOH   | ●               | ●              | ■      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      |
| Acetic acid ester                                 | CH <sub>3</sub> COOC <sub>2</sub> H <sub>5</sub>                   | ■               | ■              | ■      | ■      | ■      | ■      | ■      | ■      | ■      | ■      | ■      | ■      |
| Acetone   | CH <sub>3</sub> COCH <sub>3</sub>                                  | ■               | ■              | ■      | ■      | ■      | ●      | ●      | ■      | ■      | ■      | ■      | ■      |
| Acetylene   | C <sub>2</sub> H <sub>2</sub>                                      | ●               | ●              | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      |
| Adipic acid                                       | HOOC(CH <sub>2</sub> ) <sub>4</sub> COOH                           | ●               | ●              | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      |
| Air   |  | ●               | ●              | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      |
| Aliphatic hydrocarbons (see under specific name)  |  |                 |                |        |        |        |        |        |        |        |        |        |        |
| Alcohol (see under specific name)                 |  |                 |                |        |        |        |        |        |        |        |        |        |        |
| Alum  | KAl(SO <sub>4</sub> ) <sub>2</sub>                                 | ●               | ●              | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      |
| Aluminum acetate                                  | (CH <sub>3</sub> COO) <sub>2</sub> Al OH                           | ●               | ●              | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      |
| Aluminum chlorate                                 | Al(ClO <sub>3</sub> ) <sub>3</sub>                                 | ●               | ●              | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      |
| Aluminum chloride                                 | AlCl <sub>3</sub>  | ●               | ●              | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      |
| Ammonia   | NH <sub>3</sub>  | ●               | ●              | ▲      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      |
| Ammonium carbonate                                | (NH <sub>4</sub> ) <sub>2</sub> CO <sub>3</sub>                    | ●               | ●              | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      |
| Ammonium chloride                                 | NH <sub>4</sub> Cl   | ●               | ●              | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      |
| Ammonium hydrogenphosphate (diammonium phosphate) | (NH <sub>4</sub> ) <sub>2</sub> HPO <sub>4</sub>                   | ●               | ●              | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      |
| Ammonium hydroxide                                | NH <sub>4</sub> OH   | ●               | ●              | ▲      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      |
| Amyl acetate                                      | CH <sub>3</sub> COOC <sub>5</sub> H <sub>11</sub>                  | ■               | ■              | ■      | ■      | ■      | ■      | ■      | ■      | ■      | ■      | ■      | ■      |
| Aniline   | C <sub>6</sub> H <sub>5</sub> NH <sub>2</sub>                      | ▲               | ▲              | ▲      | ▲      | ▲      | ▲      | ▲      | ■      | ▲      | ▲      | ▲      | ▲      |
| Anon (Cyclohexanone)                              | C <sub>6</sub> H <sub>10</sub> O                                   | ▲               | ▲              | ▲      | ▲      | ▲      | ▲      | ▲      | ■      | ▲      | ▲      | ▲      | ▲      |
| Arcton 12 (Frigen or Freon 12)                    | C Cl <sub>2</sub> F <sub>2</sub>                                   | ●               | ●              | ■      | ●      | ●      | ●      | ●      | ■      | ●      | ●      | ●      | ●      |
| Arcton 22 (Frigen or Freon 22)                    | CHF <sub>2</sub> Cl  | ●               | ●              | ■      | ●      | ●      | ●      | ●      | ■      | ●      | ●      | ●      | ●      |
| Aromatic hydrocarbons (see under specific name)   |  |                 |                |        |        |        |        |        |        |        |        |        |        |
| Asphalt (tar)                                     |  | ●               | ●              | ●      | ●      | ●      | ●      | ●      | ■      | ●      | ●      | ●      | ●      |
| <b>B</b> arium chloride                           | BaCl <sub>2</sub>  | ●               | ●              | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      |
| Benzene   | C <sub>6</sub> H <sub>6</sub>                                      | ●               | ●              | ■      | ●      | ●      | ●      | ●      | ▲      | ●      | ●      | ●      | ●      |
| Benzoic acid                                      | C <sub>6</sub> H <sub>5</sub> COOH                                 | ■               | ■              | ■      | ■      | ■      | ■      | ■      | ●      | ■      | ■      | ■      | ●      |
| Blast furnace gas                                 |  | ●               | ●              | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      |
| Bleaching liquor (chloride of lime)               |  | ●               | ●              | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      |
| Boiler feed water and boiler water (alkaline)     |  | ●               | ●              | ■      | ●      | ●      | ●      | ●      | ●      | ■      | ■      | ●      | ●      |
| Borax   | Na <sub>2</sub> B <sub>4</sub> O <sub>7</sub> · 10H <sub>2</sub> O | ●               | ●              | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      |
| Boric acid  | B (OH) <sub>3</sub>  | ●               | ●              | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      |
| Brine   | NaCl   | ●               | ●              | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      |
| Butane  | C <sub>4</sub> H <sub>10</sub>                                     | ●               | ●              | ●      | ●      | ●      | ●      | ■      | ●      | ●      | ●      | ●      | ●      |
| Butanol (butyl alcohol)                           | C <sub>4</sub> H <sub>9</sub> OH                                   | ●               | ●              | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      |
| Butanone (2) (M.E.K.)                             | CH <sub>3</sub> COC <sub>2</sub> H <sub>5</sub>                    | ■               | ■              | ▲      | ■      | ■      | ■      | ■      | ■      | ■      | ■      | ■      | ■      |
| Butyl acetates                                    | CH <sub>3</sub> COOC <sub>4</sub> H <sub>9</sub>                   | ■               | ■              | ■      | ■      | ■      | ■      | ■      | ■      | ■      | ■      | ■      | ●      |
| Butyl alcohol                                     | C <sub>4</sub> H <sub>9</sub> OH                                   | ●               | ●              | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      |
| Butylamine  | C <sub>4</sub> H <sub>9</sub> NH <sub>2</sub>                      | ▲               | ▲              | ▲      | ▲      | ▲      | ▲      | ▲      | ▲      | ▲      | ▲      | ▲      | ▲      |
| Butyric acid                                      | C <sub>3</sub> H <sub>7</sub> COOH                                 | ●               | ●              | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      |

\* Resistant means: Suitable for the appropriate use as a compressed gasket between flange surfaces.

Subject to technical alternations. 03.2006

● Resistant\* ■ Condit. recommended ▲ Not recommended



For your choice of the right gasket we offer you a proven communication concept which leads you step by step to the right decision.

### 1. Application survey

A comparison of the sealing material characteristics with the criteria for typical fields of application gives you a first general survey.

### 2. Documentation of the product:

A technical data sheet is available for every material including the

pT diagram, which demonstrates different material behaviour to further facilitate your choice.

### 3. Resistance to media:

Here you find statements on the resistance of every Klinger gasket material.

| Medium  | Chemical formula   | Gasket material |                |        |        |        |        |        |        |        |        |        |        |   |
|---|--|-----------------|----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---|
|   |  | Top-sil-ML 1    | Top-graph 2000 | C-4106 | C-4300 | C-4400 | C-4430 | C-4500 | C-6307 | C-8200 | C-4408 | C-4409 | C-4509 |   |
| Calcium chloride  | CaCl <sub>2</sub>  | ●               | ●              | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ● |
| Calcium hydroxide   | Ca(OH) <sub>2</sub>  | ●               | ●              | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ● |
| Calcium hypochlorite  | Ca(OCl) <sub>2</sub>   | ●               | ●              | ▲      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ● |
| Calcium sulfate   | CaSO <sub>4</sub>  | ●               | ●              | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ● |
| Carbolic acid 100% (phenol)   | C <sub>6</sub> H <sub>5</sub> OH   | ▲               | ▲              | ■      | ▲      | ▲      | ▲      | ▲      | ▲      | ■      | ▲      | ▲      | ▲      | ▲ |
| Carbon dioxide  | CO <sub>2</sub>  | ●               | ●              | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ● |
| Carbon disulfide  | CS <sub>2</sub>  | ●               | ●              | ■      | ●      | ●      | ●      | ●      | ■      | ●      | ●      | ●      | ●      | ● |
| Carbon tetrachloride  | CCl <sub>4</sub>   | ■               | ■              | ▲      | ■      | ■      | ■      | ■      | ■      | ▲      | ■      | ■      | ■      | ■ |
| Castor oil  |  | ●               | ●              | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ● |
| Chlorine (dry)  | Cl <sub>2</sub>  | ●               | ●              | ▲      | ●      | ●      | ●      | ●      | ■      | ●      | ●      | ●      | ●      | ● |
| Chlorine (wet)  | Cl <sub>2</sub>  | ■               | ■              | ▲      | ■      | ■      | ■      | ■      | ▲      | ■      | ■      | ■      | ■      | ■ |
| Chlorine water (circa 0,5%)   |  | ●               | ●              | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ● |
| Chloroform  | CHCl <sub>3</sub>  | ■               | ■              | ■      | ■      | ■      | ■      | ■      | ▲      | ■      | ■      | ■      | ■      | ■ |
| Chromic acid  | H <sub>2</sub> CrO <sub>4</sub>  | ■               | ■              | ▲      | ■      | ■      | ■      | ■      | ▲      | ■      | ■      | ■      | ■      | ■ |
| Citric acid   | (CH <sub>2</sub> COOH) <sub>2</sub> C(OH)COOH                                  | ●               | ●              | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ● |
| Clophen T64   |  | ●               | ●              | ■      | ●      | ●      | ●      | ●      | ▲      | ■      | ●      | ●      | ●      | ● |
| Coagulating baths (up to 10%)   | H <sub>2</sub> SO <sub>4</sub>   | ■               | ■              | ▲      | ■      | ■      | ■      | ●      | ▲      | ●      | ■      | ●      | ●      | ● |
| Condensation water  | H <sub>2</sub> O   | ●               | ●              | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ● |
| Copper acetate  | (CH <sub>3</sub> COO) <sub>2</sub> Cu  | ●               | ●              | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ● |
| Copper sulfate  | CuSO <sub>4</sub>  | ●               | ●              | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ● |
| Cresol  | C <sub>6</sub> H <sub>4</sub> (OH)CH <sub>3</sub>                              | ■               | ■              | ■      | ■      | ■      | ■      | ▲      | ■      | ▲      | ■      | ■      | ▲      | ■ |
| Cyclohexanol  | C <sub>6</sub> H <sub>11</sub> OH  | ●               | ●              | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ● |
| Cyclohexanone (see anon)  |  |                 |                |        |        |        |        |        |        |        |        |        |        |   |
| Decaline  | C <sub>10</sub> H <sub>18</sub>  | ●               | ●              | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ● |
| Dibenzyl ether  | (C <sub>6</sub> H <sub>5</sub> CH <sub>2</sub> ) <sub>2</sub> O                | ▲               | ▲              | ▲      | ▲      | ▲      | ▲      | ▲      | ▲      | ▲      | ▲      | ▲      | ▲      | ▲ |
| Dibutyl phthalate   | C <sub>6</sub> H <sub>4</sub> (COOC <sub>4</sub> H <sub>9</sub> ) <sub>2</sub> | ●               | ●              | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ● |
| Diesel oil  |  | ●               | ●              | ●      | ●      | ●      | ●      | ●      | ■      | ●      | ●      | ●      | ●      | ● |
| Diethyl ether   | C <sub>2</sub> H <sub>5</sub> OC <sub>2</sub> H <sub>5</sub>                   | ●               | ●              | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ● |
| Dimethyl formamide  | HCON(CH <sub>3</sub> ) <sub>2</sub>  | ▲               | ▲              | ▲      | ▲      | ▲      | ▲      | ▲      | ▲      | ▲      | ▲      | ▲      | ▲      | ▲ |
| Diphyl (Dowtherm A)   |  | ●               | ●              | ■      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ● |
| Dye baths (alkaline, neutral, acidic)   |  | ●               | ●              | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ● |
| Ethane  | C <sub>2</sub> H <sub>6</sub>  | ●               | ●              | ●      | ●      | ●      | ●      | ●      | ■      | ●      | ●      | ●      | ●      | ● |
| Ethanol (ethyl alcohol)   | C <sub>2</sub> H <sub>5</sub> OH   | ●               | ●              | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ● |
| Ethyl acetate (acetic ethylester)   | CH <sub>3</sub> COOC <sub>2</sub> H <sub>5</sub>                               | ■               | ■              | ■      | ■      | ■      | ■      | ■      | ■      | ■      | ■      | ■      | ■      | ■ |
| Ethyl alcohol   | C <sub>2</sub> H <sub>5</sub> OH   | ●               | ●              | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ● |
| Ethyl chloride  | C <sub>2</sub> H <sub>5</sub> Cl   | ■               | ■              | ■      | ■      | ■      | ■      | ■      | ▲      | ■      | ■      | ■      | ■      | ■ |
| Ethylene  | C <sub>2</sub> H <sub>4</sub>  | ●               | ●              | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ● |
| Ethylene chloride   | (CH <sub>2</sub> Cl) <sub>2</sub>  | ▲               | ▲              | ▲      | ▲      | ▲      | ▲      | ▲      | ▲      | ●      | ▲      | ▲      | ▲      | ▲ |
| Ethylenediamine   | (CH <sub>2</sub> NH <sub>2</sub> ) <sub>2</sub>                                | ▲               | ▲              | ▲      | ▲      | ▲      | ▲      | ▲      | ●      | ▲      | ▲      | ▲      | ▲      | ▲ |
| Ethylene glycol   | (CH <sub>2</sub> OH) <sub>2</sub>  | ●               | ●              | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ● |
| Fatty acids from C <sub>6</sub> upwards (see palmitic, stearic and oelic acids) |  |                 |                |        |        |        |        |        |        |        |        |        |        |   |
| Fluorosilicic acid  | H <sub>2</sub> SiF <sub>6</sub>  | ●               | ●              | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ● |
| Formaldehyde  | HCHO   | ●               | ●              | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ● |

\* Resistant means: Suitable for the appropriate use as a compressed gasket between flange surfaces.





The recommendations given here are intended to be an aid in the selection of the suitable gasket quality. It is not possible to provide a warranty because the function and durability of the products depend largely a number of factors over

which the manufacturer has no influence. Should there be special approval regulations, these have to be complied with.

The nomenclature of the media corresponds to the IUPAC (German nomenclature commission): e.g. chemical compounds which are written with Ae are changed to E and can be found under this letter in the alphabet.

| Medium                                   | Chemical formula   | Gasket material |                |        |        |        |        |        |        |        |        |        |        |
|--|--|-----------------|----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|  |  | Top-sil-ML 1    | Top-graph 2000 | C-4106 | C-4300 | C-4400 | C-4430 | C-4500 | C-6307 | C-8200 | C-4408 | C-4409 | C-4509 |
| <b>N</b> aphtha                          |  | ●               | ●              | ●      | ●      | ●      | ●      | ●      | ▲      | ●      | ●      | ●      | ●      |
| Natural gas                              |  | ●               | ●              | ●      | ●      | ●      | ●      | ●      | ■      | ●      | ●      | ●      | ●      |
| Nitric acid 20%                          | HNO <sub>3</sub>   | ▲               | ▲              | ▲      | ▲      | ▲      | ▲      | ■      | ▲      | ■      | ▲      | ▲      | ▲      |
| Nitric acid 40%                          | HNO <sub>3</sub>   | ▲               | ▲              | ▲      | ▲      | ▲      | ▲      | ▲      | ▲      | ■      | ▲      | ▲      | ▲      |
| Nitric acid 96%                          | HNO <sub>3</sub>   | ▲               | ▲              | ▲      | ▲      | ▲      | ▲      | ▲      | ▲      | ▲      | ▲      | ▲      | ▲      |
| Nitrobenzene                             | C <sub>6</sub> H <sub>5</sub> NO <sub>2</sub>            | ▲               | ▲              | ▲      | ▲      | ▲      | ▲      | ▲      | ■      | ▲      | ▲      | ▲      | ▲      |
| Nitrogen                                 | N <sub>2</sub>   | ●               | ●              | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      |
| <b>O</b> ctane                           | C <sub>8</sub> H <sub>18</sub>                           | ●               | ●              | ●      | ●      | ●      | ●      | ●      | ■      | ●      | ●      | ●      | ●      |
| Oleic acid                               | C <sub>17</sub> H <sub>33</sub> COOH                     | ●               | ●              | ●      | ●      | ●      | ●      | ●      | ■      | ●      | ●      | ●      | ●      |
| Oleum (fuming sulfuric acid))            | H <sub>2</sub> SO <sub>4</sub> with free SO <sub>3</sub> | ▲               | ▲              | ▲      | ▲      | ▲      | ▲      | ▲      | ▲      | ▲      | ▲      | ▲      | ▲      |
| Oxalic acid                              | (COOH) <sub>2</sub>                                      | ■               | ■              | ■      | ■      | ■      | ■      | ●      | ▲      | ●      | ■      | ■      | ●      |
| Oxygen (check local regulations for use) | O <sub>2</sub>   | ●               | ●              | ▲      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      |
| <b>P</b> almitic acid                    | C <sub>15</sub> H <sub>31</sub> COOH                     | ●               | ●              | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      |
| Paraffin (kerosene)                      |  | ●               | ●              | ●      | ●      | ●      | ●      | ●      | ▲      | ●      | ●      | ●      | ●      |
| Pentane                                  | C <sub>5</sub> H <sub>12</sub>                           | ●               | ●              | ●      | ●      | ●      | ●      | ●      | ■      | ●      | ●      | ●      | ●      |
| Perchlorethylene                         | C <sub>2</sub> Cl <sub>4</sub>                           | ■               | ■              | ▲      | ■      | ■      | ■      | ■      | ■      | ■      | ■      | ■      | ■      |
| Petrol (fuel)                            |  | ●               | ●              | ●      | ●      | ●      | ●      | ●      | ■      | ●      | ●      | ●      | ●      |
| Petroleum                                |  | ●               | ●              | ●      | ●      | ●      | ●      | ●      | ▲      | ●      | ●      | ●      | ●      |
| Petroleum ether                          |  | ●               | ●              | ●      | ●      | ●      | ●      | ●      | ■      | ●      | ●      | ●      | ●      |
| Phenol                                   | C <sub>6</sub> H <sub>5</sub> OH                         | ▲               | ▲              | ■      | ▲      | ▲      | ▲      | ▲      | ▲      | ■      | ▲      | ▲      | ▲      |
| Phosphoric acid (all concentrations)     | H <sub>3</sub> PO <sub>4</sub>                           | ●               | ●              | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      |
| Phthalic acid                            | C <sub>6</sub> H <sub>4</sub> (COOH) <sub>2</sub>        | ●               | ●              | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      |
| Potassium acetate                        | CH <sub>3</sub> COOK                                     | ●               | ●              | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      |
| Potassium carbonate                      | K <sub>2</sub> CO <sub>3</sub>                           | ●               | ●              | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      |
| Potassium chlorate                       | KClO <sub>3</sub>  | ●               | ●              | ■      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      |
| Potassium chloride                       | KCl  | ●               | ●              | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      |
| Potassium chromium sulfate               | KCr(SO <sub>4</sub> ) <sub>2</sub> · 12H <sub>2</sub> O  | ●               | ●              | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      |
| Potassium cyanide                        | KCN  | ●               | ●              | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      |
| Potassium dichromate                     | K <sub>2</sub> Cr <sub>2</sub> O <sub>7</sub>            | ●               | ●              | ■      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      |
| Potassium hydroxide                      | KOH  | ■               | ■              | ■      | ■      | ■      | ■      | ●      | ■      | ●      | ■      | ■      | ●      |
| Potassium hypochlorite (eau de Javelle)  | KOCl   | ●               | ●              | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      |
| Potassium iodide                         | KJ   | ●               | ●              | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      |
| Potassium nitrate (salpetre)             | KNO <sub>3</sub>   | ●               | ●              | ■      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      |
| Potassium permanganate                   | KMnO <sub>4</sub>  | ●               | ●              | ■      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      |
| Propane                                  | C <sub>3</sub> H <sub>8</sub>                            | ●               | ●              | ●      | ●      | ●      | ●      | ●      | ■      | ●      | ●      | ●      | ●      |
| Pyridine                                 | C <sub>5</sub> H <sub>5</sub> N                          | ▲               | ▲              | ▲      | ▲      | ▲      | ▲      | ▲      | ■      | ▲      | ▲      | ▲      | ▲      |
| <b>R</b> apeseed oil                     |  | ●               | ●              | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      |
| R134a                                    | CH <sub>2</sub> FCF <sub>3</sub>                         | ●               | ●              | ■      | ●      | ●      | ●      | ●      | ■      | ●      | ●      | ●      | ●      |
| <b>S</b> alicylic acid                   | C <sub>6</sub> H <sub>4</sub> (OH)COOH                   | ●               | ●              | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      |
| Salt (rock salt)                         | NaCl   | ●               | ●              | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      |
| Sea water                                |  | ●               | ●              | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      |
| Silicone oil                             |  | ●               | ●              | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      |
| Skydrol 500                              |  | ▲               | ▲              | ▲      | ▲      | ▲      | ▲      | ▲      | ■      | ▲      | ▲      | ▲      | ▲      |

\* Resistant means: Suitable for the appropriate use as a compressed gasket between flange surfaces.

| Medium                                      | Chemical formula   | Gasket material |                |        |        |        |        |        |        |        |        |        |        |
|---|--|-----------------|----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|   |  | Top-sil-ML 1    | Top-graph 2000 | C-4106 | C-4300 | C-4400 | C-4430 | C-4500 | C-6307 | C-8200 | C-4408 | C-4409 | C-4509 |
| <b>Soap</b>                                 |  | ●               | ●              | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      |
| Soda (sodium carbonate)                     | Na <sub>2</sub> CO <sub>3</sub>                                  | ●               | ●              | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      |
| Sodium aluminate                            | Na <sub>3</sub> AlO <sub>3</sub>                                 | ●               | ●              | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      |
| Sodium hydrogencarbonate                    | NaHCO <sub>3</sub>   | ●               | ●              | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      |
| Sodium hydrogensulfite                      | NaHSO <sub>3</sub>   | ●               | ●              | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      |
| Sodium chloride (Salt)                      | NaCl   | ●               | ●              | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      |
| Sodium cyanide                              | NaCN   | ●               | ●              | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      |
| Sodium hydroxide                            | NaOH   | ■               | ■              | ■      | ■      | ■      | ■      | ●      | ■      | ●      | ■      | ■      | ●      |
| Sodium silicate (water-glass)               | Na <sub>2</sub> SiO <sub>3</sub> K <sub>2</sub> SiO <sub>3</sub> | ●               | ●              | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      |
| Sodium sulfate                              | Na <sub>2</sub> SO <sub>4</sub>                                  | ●               | ●              | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      |
| Sodium sulfide                              | Na <sub>2</sub> S  | ●               | ●              | ■      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      |
| Spirit                                      |  | ●               | ●              | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      |
| Starch                                      | (C <sub>6</sub> H <sub>10</sub> O <sub>5</sub> ) <sub>n</sub>    | ●               | ●              | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      |
| Steam (temperature limit see pT-diagram)    | H <sub>2</sub> O   | ●               | ●              | ■      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      |
| Stearic acid                                | C <sub>17</sub> H <sub>35</sub> COOH                             | ●               | ●              | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      |
| Sugar                                       |  | ●               | ●              | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      |
| Sulfur dioxide                              | SO <sub>2</sub>  | ■               | ■              | ■      | ■      | ■      | ■      | ■      | ■      | ●      | ■      | ■      | ■      |
| Sulfuric acid 20 %                          | H <sub>2</sub> SO <sub>4</sub>                                   | ▲               | ▲              | ▲      | ▲      | ▲      | ▲      | ■      | ▲      | ●      | ▲      | ▲      | ▲      |
| Sulfuric acid 50 %                          | H <sub>2</sub> SO <sub>4</sub>                                   | ▲               | ▲              | ▲      | ▲      | ▲      | ▲      | ■      | ▲      | ●      | ▲      | ▲      | ▲      |
| Sulfuric acid 96 %                          | H <sub>2</sub> SO <sub>4</sub>                                   | ▲               | ▲              | ▲      | ▲      | ▲      | ▲      | ■      | ▲      | ●      | ▲      | ▲      | ▲      |
| Sulfurous acid                              | H <sub>2</sub> SO <sub>3</sub>                                   | ■               | ■              | ■      | ■      | ■      | ■      | ●      | ■      | ●      | ■      | ■      | ●      |
| <b>Tannic acid</b>                          | C <sub>76</sub> H <sub>52</sub> O <sub>46</sub>                  | ●               | ●              | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      |
| Tar (asphalt)                               |  | ●               | ●              | ■      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      |
| Tartaric acid                               | (CHOHCOOH) <sub>2</sub>  | ●               | ●              | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      |
| Tetrachlorethane                            | C <sub>2</sub> H <sub>2</sub> Cl <sub>4</sub>                    | ■               | ■              | ▲      | ■      | ■      | ■      | ■      | ■      | ■      | ■      | ■      | ■      |
| Tetralin (1, 2, 3, 4 -tetrahydronaphtalene) | C <sub>10</sub> H <sub>12</sub>                                  | ●               | ●              | ■      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      |
| Toluene                                     | C <sub>6</sub> H <sub>5</sub> CH <sub>3</sub>                    | ●               | ●              | ■      | ●      | ●      | ●      | ●      | ▲      | ●      | ●      | ●      | ●      |
| Town gas                                    |  | ●               | ●              | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      |
| Transformer oil                             |  | ●               | ●              | ●      | ●      | ●      | ●      | ●      | ●      | ■      | ●      | ●      | ●      |
| Trichlorethylene                            | C <sub>2</sub> HCl <sub>3</sub>                                  | ■               | ■              | ▲      | ■      | ■      | ■      | ■      | ■      | ■      | ■      | ■      | ■      |
| Triethanolamine                             | N(CH <sub>2</sub> CH <sub>2</sub> OH) <sub>3</sub>               | ●               | ●              | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      |
| Turpentine                                  |  | ●               | ●              | ■      | ●      | ●      | ●      | ●      | ▲      | ■      | ●      | ●      | ●      |
| <b>Urea</b>                                 | (NH <sub>2</sub> ) <sub>2</sub> CO                               | ●               | ●              | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      |
| <b>Vinyl acetate</b>                        | CH <sub>3</sub> COOC <sub>2</sub> H <sub>3</sub>                 | ●               | ●              | ■      | ●      | ●      | ●      | ●      | ▲      | ●      | ●      | ●      | ●      |
| <b>Water</b>                                | H <sub>2</sub> O   | ●               | ●              | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      |
| Water-glass                                 | Na <sub>2</sub> SiO <sub>3</sub> K <sub>2</sub> SiO <sub>3</sub> | ●               | ●              | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      | ●      |
| White Spirit                                |  | ●               | ●              | ●      | ●      | ●      | ●      | ●      | ■      | ●      | ●      | ●      | ●      |
| <b>Xylene</b>                               | C <sub>6</sub> H <sub>4</sub> (CH <sub>3</sub> ) <sub>2</sub>    | ●               | ●              | ■      | ●      | ●      | ●      | ●      | ■      | ■      | ●      | ●      | ●      |

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