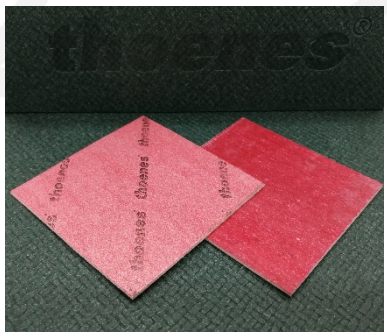


thoenes® BA130

The gasket material sheet has been specially developed for demanding applications where only low bolt loads permissible and flange irregularities need to be compensated. It offers a high compressibility and an increased recovery in addition to improved mechanical and thermal performances. It can be used for sealing mineral oils, fuels, lubricants refrigerants, steam, air and many other media.

Basis:	Synthetic fibre, special fillers, NBR
Colour:	Red
Surface coating:	Standard - without non-stick coating On request - graphite, PTFE and non-stick coating
Certifications:	DVGW DIN 3535-6, ELL, EC 1935/2004
Applications:	It can be used for sealing mineral oils, fuels, lubricants refrigerants, steam, air and many other media.

Technical specifications (typical values at 2 mm thickness)

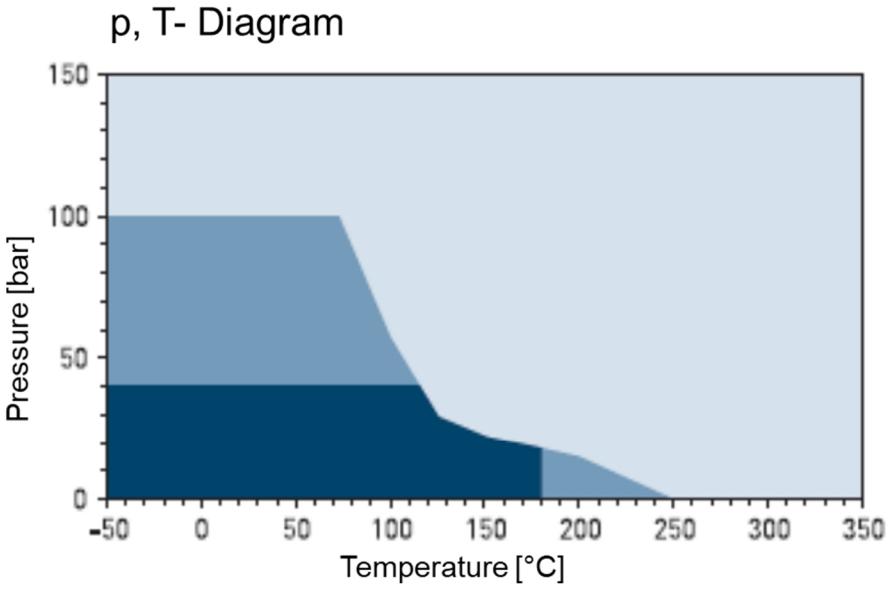
Density	DIN 28090-2	g/cm³	1.5
Compressibility	ASTM F 36/J	%	25
Resilience	ASTM F 36/J	%	64
Tensile Strength	DIN 52910	MPa	6
Pressure resistance	DIN 52913		
50 MPa, T= 175°C, 16 h		MPa	30
50 MPa, T= 300°C, 16 h		MPa	20
Media resistance in Oil IRM 903, 5 h, 150 °C	ASTM F 146		
Thickness increase		%	2
Media resistance in ASTM fuel B, 5 h, 23 °C	ASTM F 146		
Thickness increase		%	6
Specific leakage rate	DIN 3535/6	mg/m*s	0.02
Max. operating conditions			
Maximum temperature		°C	350
Continuous temperature		°C	250
Continuous temperature at steam		°C	200
Pressure		bar	100
Cold compression value ε_{KSW}	DIN 28090-2	%	18.4
Cold rebound value ε_{KRW}	DIN 28090-2	%	10
Warm setting value $\varepsilon_{WSW/200\,°C}$	DIN 28090-2	%	14.6
Warm rebound value $\varepsilon_{WRW/200°C}$	DIN 28090-2	%	1.6

Dimensions:

Plate sizes *	1500 mm x 1500 mm; 3000 mm x 1500 mm; 4500 mm x 1500 mm
Thickness *	0.5 mm; 1.0 mm; 1.5 mm; 2.0 mm; 3.0 mm
Thickness tolerance	< 1mm ±0.1mm respectively ≥ 1 mm ±10%
Length tolerance	± 5 %
Width tolerance	± 5 %
Thickness above 1 mm	± 10 %

* Different sizes and thicknesses on request

Recommendations for use



- General suitability - Under common installation practices and chemical compatibility.
- Conditional sutability – Appropriate measures ensure maximium performance for joint design and gasket installation. Technical consultation is recommended.
- Limited suitability – Technical consultation is mandatory.

The indicated temperatures and pressures are peak values and should not be used simultaneously. The information can only serve as a guideline, as these are not only dependent on the sealing material, but also on the installation conditions. Very important influencing factors are: seal thickness, type of medium, flange type and surface stress. Special care should be taken with steam applications. In case of doubt, our experts are always ready to find the optimal sealing solution for the application.

BA 130

thoenes®

Chemical resistance chart

Legend

- ☑ Resistant
- ☑ Resistance/ recommendation depends on operation conditions
- ☑ Not resistant

Substance				Substance				Substance			
Acetamide	☑	☐	☐	Dimethylformamide (DMF)	☐	☑	☐	Oils (vegetables)	☐	☑	☐
Acetic acid, 10 %	☑	☐	☐	Dioxane	☐	☐	☑	Oleic acid	☑	☐	☐
Acetic acid, 100 % (Glacial)	☐	☐	☑	Diphyl (Dowtherm A)	☑	☐	☐	Oleum (Sulfuric acid, fuming)	☐	☐	☑
Acetone	☐	☑	☐	Esters	☐	☑	☐	Oxalic acid	☐	☑	☐
Acetonitrile	☐	☐	☑	Ethane (gas)	☑	☐	☐	Oxygen (gas)	☑	☐	☐
Acetylene (gas)	☑	☐	☐	Ethers	☐	☑	☐	Palmitic acid	☑	☐	☐
Acid chlorides	☐	☐	☑	Ethyl acetate	☐	☑	☐	Paraffin oil	☑	☐	☐
Acrylic acid	☐	☑	☐	Ethyl alcohol (Ethanol)	☑	☐	☐	Pentane	☑	☐	☐
Acrylonitrile	☐	☐	☑	Ethyl cellulose	☐	☑	☐	Perchloroethylene	☐	☐	☑
Adipic acid	☑	☐	☐	Ethyl chloride (gas)	☐	☐	☑	Petroleum (Crude oil)	☑	☐	☐
Air (gas)	☑	☐	☐	Ethylene (gas)	☑	☐	☐	Phenol (Carbolic acid)	☐	☐	☑
Alcohols	☐	☑	☐	Ethylene glycol	☑	☐	☐	Phosphoric acid, 40 %	☐	☑	☐
Aldehydes	☐	☑	☐	Formaldehyde (Formalin)	☐	☑	☐	Phosphoric acid, 85 %	☐	☐	☑
Alum	☑	☐	☐	Formamide	☐	☑	☐	Phthalic acid	☑	☐	☐
Aluminium acetat	☑	☐	☐	Formic acid, 10 %	☑	☐	☐	Potassium acetate	☑	☐	☐
Aluminium chlorate	☐	☑	☐	Formic acid, 85 %	☐	☑	☐	Potassium bicarbonate	☑	☐	☐
Aluminium chloride	☐	☑	☐	Formic acid, 100 %	☐	☐	☑	Potassium carbonate	☑	☐	☐
Aluminium sulfate	☐	☑	☐	Freon-12 (R-12)	☑	☐	☐	Potassium chloride	☑	☐	☐
Amines	☐	☐	☑	Freon-134a (R-134a)	☑	☐	☐	Potassium cyanide	☑	☐	☐
Ammonia (gas)	☐	☑	☐	Freon-22 (R-22)	☐	☑	☐	Potassium dichromate	☐	☑	☐
Ammonium bicarbonate	☑	☐	☐	Fruit juices	☐	☑	☐	Potassium hydroxide	☐	☑	☐
Ammonium chloride	☑	☐	☐	Fuel oil	☑	☐	☐	Potassium iodide	☑	☐	☐
Ammonium hydroxide	☑	☐	☐	Gasoline	☑	☐	☐	Potassium nitrate	☑	☐	☐
Amyl acetate	☐	☑	☐	Gelatin	☑	☐	☐	Potassium permanganate	☐	☑	☐
Anhydrides	☐	☑	☐	Glycerine (Glycerol)	☑	☐	☐	Propane (gas)	☑	☐	☐
Aniline	☐	☐	☑	Glycols	☐	☑	☐	Propylene (gas)	☑	☐	☐
Anisole	☐	☑	☐	Helium (gas)	☑	☐	☐	Pyridine	☐	☐	☑
Argon (gas)	☑	☐	☐	Heptane	☑	☐	☐	Salicylic acid	☐	☑	☐
Asphalt	☑	☐	☐	Hydraulic oil (Glycol based)	☑	☐	☐	Seawater/ brine	☑	☐	☐
Barium chloride	☑	☐	☐	Hydraulic oil (Mineral type)	☑	☐	☐	Silicones (oil/ greases)	☑	☐	☐
Benzaldehyde	☐	☐	☑	Hydraulic oil (Phosphate ester based)	☐	☑	☐	Soaps	☑	☐	☐
Benzene	☑	☐	☐	Hydrazine	☐	☐	☑	Sodium aluminate	☑	☐	☐
Benzoic acid	☐	☑	☐	Hydrocarbons	☐	☑	☐	Sodium bicabonate	☑	☐	☐
Bio-diesel	☑	☐	☐	Hydrochloric acid, 10 %	☐	☑	☐	Sodium bisulfite	☑	☐	☐
Bio-ethanol	☑	☐	☐	Hydrochloric acid, 37 %	☐	☐	☑	Sodium carbonate	☑	☐	☐
Black liquor	☐	☑	☐	Hydrofluoric acid, 10 %	☐	☐	☑	Sodium chloride	☑	☐	☐
Borax	☑	☐	☐	Hydrofuoric acid, 48 %	☐	☐	☑	Sodium cyanide	☐	☑	☐
Boric acid	☑	☐	☐	Hydrogen (gas)	☑	☐	☐	Sodium hydroxide	☐	☑	☐
Butadiene (gas)	☑	☐	☐	Iron sulfate	☑	☐	☐	Sodium hypochlorite (Bleach)	☐	☑	☐
Butane (gas)	☑	☐	☐	Isobutane (gas)	☑	☐	☐	Sodium silicate (Water glass)	☑	☐	☐
Butyl alcohol (Butanol)	☑	☐	☐	Isooctane	☑	☐	☐	Sodium sulfate	☑	☐	☐
Butyric acid	☑	☐	☐	Isoprene	☑	☐	☐	Sodium sulfide	☑	☐	☐
Calcium chloride	☑	☐	☐	Isopropyl alcohol (Isopropanol)	☑	☐	☐	Starch	☑	☐	☐
Calcium hydroxide	☑	☐	☐	Kerosene	☑	☐	☐	Steam	☑	☐	☐
Carbon dioxide (gas)	☑	☐	☐	Ketones	☐	☑	☐	Stearic acid	☑	☐	☐
Carbon monoxide (gas)	☑	☐	☐	Lactid acid	☐	☑	☐	Styrene	☐	☑	☐
Cellosolve	☐	☑	☐	Lead acetate	☑	☐	☐	Sugars	☑	☐	☐
Chlorine (gas)	☐	☑	☐	Lead arsenate	☑	☐	☐	Sulfur	☐	☑	☐
Chlorine (in water)	☐	☐	☑	Magnesium sulfate	☑	☐	☐	Sulfur dioxide (gas)	☐	☑	☐
Chlorine (liquid)	☐	☑	☐	Maleic acid	☐	☑	☐	Sulfuric acid, 20 %	☐	☐	☑
Chlorobenzene	☐	☑	☐	Malic acid	☐	☑	☐	Sulfuric acid, 98 %	☐	☐	☑
Chloroform	☐	☐	☑	Methane (gas)	☑	☐	☐	Sulfuryl chloride	☐	☐	☑
Chloroprene	☐	☑	☐	Methyl alcohol (Methanol)	☑	☐	☐	Tar	☑	☐	☐
Chlorosilanes	☐	☐	☑	Methyl chloride (gas)	☐	☑	☐	Tartaric acid	☐	☑	☐
Chromic acid	☐	☐	☑	Methylene dichloride	☐	☑	☐	Tetrahydrofuran (THF)	☐	☐	☑
Citric acid	☐	☑	☐	Methyl ethyl ketone (MEK)	☐	☑	☐	Titanium tertachloride	☐	☐	☑
Copper acetate	☑	☐	☐	N-Methyl-pyrrolidone (NMP)	☐	☑	☐	Toluene	☑	☐	☐
Copper sulfate	☑	☐	☐	Milk	☐	☑	☐	2,4-Toluenediisocyanate	☐	☑	☐
Creosote	☐	☑	☐	Mineral oil (ASTM no. 1)	☑	☐	☐	Transformer oil (Mineral type)	☑	☐	☐
Cresols (Cresylic acid)	☐	☐	☑	Motor oil	☑	☐	☐	Trichloroethylene	☐	☐	☑
Cyclohexane	☑	☐	☐	Naphtha	☑	☐	☐	Vinegar	☑	☐	☐
Cyclohexanol	☑	☐	☐	Nitric acid, 10 %	☐	☐	☑	Vinyl chloride (gas)	☐	☐	☑
Cyclohexanone	☐	☑	☐	Nitric acid, 65 %	☐	☐	☑	Vinylidene chloride	☐	☐	☑
Decalin	☑	☐	☐	Nitrobenzene	☐	☐	☑	Water	☑	☐	☐
Dextrin	☑	☐	☐	Nitrogen (gas)	☑	☐	☐	White spirits	☑	☐	☐
Dibenzyl ether	☐	☑	☐	Nitrous gases (NO_x)	☐	☑	☐	Xylenes	☑	☐	☐
Dibutyl phthalate	☐	☑	☐	Octane	☑	☐	☐	Xylenol	☐	☐	☑
Dimethylacetamide (DMA)	☐	☑	☐	Oils (Essential)	☐	☑	☐	Zinc sulfate	☑	☐	☐

The recommendations made here serve only as a guideline for the selection of a suitable gasket. Since the function and durability of a gasket depends on a large number of factors, the information provided cannot be used to substantiate warranty claims. If there are special approval regulations, these must be observed.