

**Gaskets** 

Fibre sealings

# thoenes



## 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	0.009
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 κκw	DIN 28090-2	%	10
Warm setting value ε wsw/200 °c	DIN 28090-2	%	14.6
Warm rebound value ε 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  $< 1 \text{mm} \pm 0.1 \text{mm}$  respectively  $\geq 1 \text{ mm} \pm 10\%$ 

Length tolerance ± 5 % Width tolerance ± 5 % Thickness above 1 mm ± 10 %

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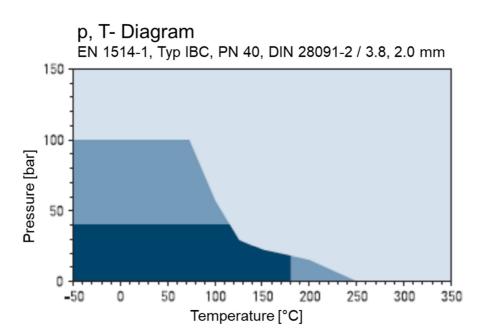
<sup>\*</sup> Different sizes and thicknesses on request





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#### 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

Resistant
Resistance/ recommendation depends on operation conditions

V	Not resistant

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

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