

thoenes® BA120



Sealing material with very good chemical, mechanical and thermal properties.

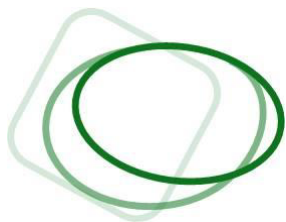
Basis:	Aramid fibre, NBR
Colour:	Blue
Surface coating:	Standard - without non-stick coating On request - graphite, PTFE and non-stick coating
Certifications:	DVGW DIN 30653, DVGW DIN 3535-6, WRAS, TA-Luft
Applications:	Universal sealing material in all areas for sealing flange connections.

Technical specifications (typical values at 2 mm thickness)

Description	DIN 28091-2		FA-A1-0
Density	DIN 28090-2	g/cm³	1.7
Compressibility	ASTM F 36/J	%	11
Resilience	ASTM F 36/J	%	60
Tensile Strength	DIN 52910	MPa	10
Pressure resistance	DIN 52913		
50MPa, T=175°C, 16 h		MPa	27
50MPa, T=300°C, 16 h		MPa	23
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		%	5
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	%	9.5
Cold rebound value ε_{KRW}	DIN 28090-2	%	4.7
Warm setting value ε_{WSW/200 °C}	DIN 28090-2	%	16.1
Warm rebound value ε_{WRW/200 °C}	DIN 28090-2	%	0.8
Reverse deformation value R	DIN 28090-2	mm	0.0298

Dimensions:	Plate sizes *	1000 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 %

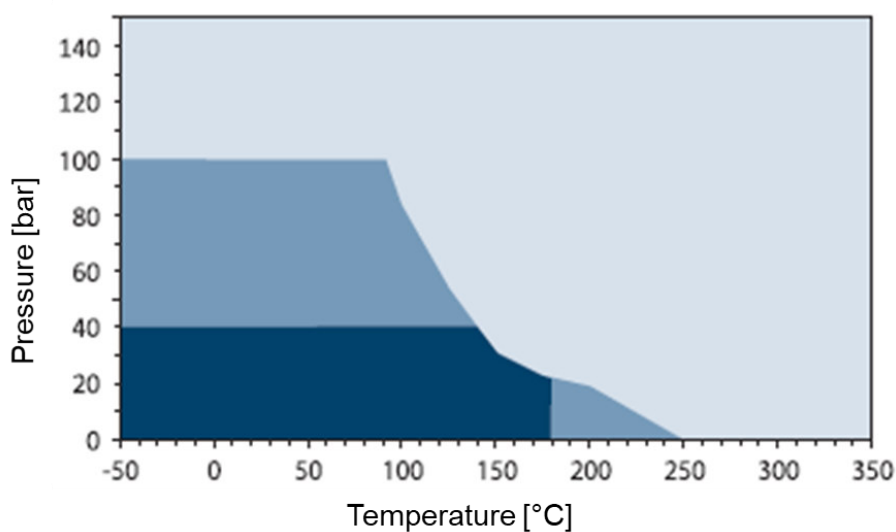
* Different sizes and thicknesses on request



Recommendations for use

p, T- Diagram

EN 1514-1, Typ IBC, PN 40, DIN 28091-2 / 3.8, 2.0 mm



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

Chemical resistance chart

Legend	☒	Resistant
	☒	Resistance/ recommendation depends on operation conditions
	☒	Not resistant

Substance				Substance				Substance			
Acetamide	☒	☐	☐	Dioxane	☐	☐	☒	Oleic acid	☒	☐	☐
Acetic acid, 10 %	☒	☐	☐	Diphenyl (Dowtherm A)	☒	☐	☐	Oleum (Sulfuric acid, fuming)	☐	☐	☒
Acetic acid, 100 % (Glacial)	☐	☐	☒	Esters	☐	☒	☐	Oxalic acid	☐	☒	☐
Acetone	☐	☒	☐	Ethane (gas)	☒	☐	☐	Oxygen (gas)	☒	☐	☐
Acetonitrile	☐	☐	☒	Ethers	☐	☒	☐	Palmitic acid	☒	☐	☐
Acetylene (gas)	☒	☐	☐	Ethyl acetate	☐	☒	☐	Paraffin oil	☒	☐	☐
Acid chlorides	☐	☐	☒	Ethyl alcohol (Ethanol)	☒	☐	☐	Pentane	☒	☐	☐
Acrylic acid	☐	☒	☐	Ethyl cellulose	☐	☒	☐	Perchloroethylene	☐	☐	☒
Acrylonitrile	☐	☐	☒	Ethyl chloride (gas)	☐	☐	☒	Petroleum (Crude oil)	☒	☐	☐
Adipic acid	☒	☐	☐	Ethylene (gas)	☒	☐	☐	Phenol (Carbolic acid)	☐	☐	☒
Air (gas)	☒	☐	☐	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	☐	☒	☐	Hydrochloric acid, 10 %	☐	☒	☐	Sodium bicarbonate	☒	☐	☐
Bio-diesel	☒	☐	☐	Hydrochloric acid, 37 %	☐	☐	☒	Sodium bisulfite	☒	☐	☐
Bio-ethanol	☒	☐	☐	Hydrofluoric acid, 10 %	☐	☐	☒	Sodium carbonate	☒	☐	☐
Black liquor	☐	☒	☐	Hydrofluoric acid, 48 %	☐	☐	☒	Sodium chloride	☒	☐	☐
Borax	☒	☐	☐	Hydrogen (gas)	☒	☐	☐	Sodium cyanide	☒	☐	☐
Boric acid	☒	☐	☐	Iron sulfate	☒	☐	☐	Sodium hydroxide	☐	☒	☐
Butadiene (gas)	☒	☐	☐	Isobutane (gas)	☒	☐	☐	Sodium hypochlorite (Bleach)	☐	☒	☐
Butane (gas)	☒	☐	☐	Isooctane	☒	☐	☐	Sodium silicate (Water glass)	☒	☐	☐
Butyl alcohol (Butanol)	☒	☐	☐	Isoprene	☒	☐	☐	Sodium sulfate	☒	☐	☐
Butyric acid	☒	☐	☐	Isopropyl alcohol (Isopropanol)	☒	☐	☐	Sodium sulfide	☒	☐	☐
Calcium chloride	☒	☐	☐	Kerosene	☒	☐	☐	Starch	☒	☐	☐
Calcium hydroxide	☒	☐	☐	Ketones	☐	☒	☐	Steam	☒	☐	☐
Carbon dioxide (gas)	☒	☐	☐	Lactic acid	☐	☒	☐	Stearic acid	☒	☐	☐
Carbon monoxide (gas)	☒	☐	☐	Lead acetate	☒	☐	☐	Styrene	☐	☒	☐
Cellosolve	☐	☒	☐	Lead arsenate	☒	☐	☐	Sugars	☒	☐	☐
Chlorine (gas)	☐	☐	☒	Magnesium sulfate	☒	☐	☐	Sulfur	☐	☒	☐
Chlorine (in water)	☒	☐	☐	Maleic acid	☐	☒	☐	Sulfur dioxide (gas)	☐	☒	☐
Chlorobenzene	☐	☒	☐	Malic acid	☐	☒	☐	Sulfuric acid, 20 %	☐	☐	☒
Chloroform	☐	☐	☒	Methane (gas)	☒	☐	☐	Sulfuric acid, 98 %	☐	☐	☒
Chloroprene	☐	☒	☐	Methyl alcohol (Methanol)	☒	☐	☐	Sulfuryl chloride	☐	☐	☒
Chlorosilanes	☐	☐	☒	Methyl chloride (gas)	☐	☒	☐	Tar	☒	☐	☐
Chromic acid	☐	☐	☒	Methylene dichloride	☐	☒	☐	Tartaric acid	?	?	?
Citric acid	☐	☒	☐	Methyl ethyl ketone (MEK)	☐	☒	☐	Tetrahydrofuran (THF)	☐	☐	☒
Copper acetate	☒	☐	☐	N-Methyl-pyrrolidone (NMP)	☐	☒	☐	Titanium tetrachloride	☐	☐	☒
Copper sulfate	☒	☐	☐	Milk	☒	☐	☐	Toluene	☒	☐	☐
Creosote	☐	☒	☐	Mineral oil (ASTM no. 1)	☒	☐	☐	2,4-Toluenediisocyanate	?	?	?
Cresols (Cresylic acid)	☐	☐	☒	Motor oil	☒	☐	☐	Transformer oil (Mineral type)	☒	☐	☐
Cyclohexane	☒	☐	☐	Naphtha	☒	☐	☐	Trichloroethylene	☐	☐	☒
Cyclohexanol	☒	☐	☐	Nitric acid, 10 %	☐	☐	☒	Vinegar	☒	☐	☐
Cyclohexanone	☐	☒	☐	Nitric acid, 65 %	☐	☐	☒	Vinyl chloride (gas)	☐	☐	☒
Decalin	☒	☐	☐	Nitrobenzene	☐	☐	☒	Vinylidene chloride	☐	☐	☒
Dextrin	☒	☐	☐	Nitrogen (gas)	☒	☐	☐	Water	☒	☐	☐
Dibenzyl ether	☐	☒	☐	Nitrous gases (NO _x)	☐	☒	☐	White spirits	☒	☐	☐
Dibutyl phthalate	☐	☒	☐	Octane	☒	☐	☐	Xylenes	☒	☐	☐
Dimethylacetamide (DMA)	☐	☐	☐	Oils (Essential)	☒	☐	☐	Xylenol	☐	☐	☒
Dimethylformamide (DMF)	☐	☒	☐	Oils (Vegetable)	☒	☐	☐	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.