













TESNIT® BA-U combines very good thermal, chemical and mechanical properties that makes it a general - purpose gasket material. It is well designed for gas and portable water supplies.



PROPERTIES

SUPERIOR	SEALABILITY PERFORMANCE		
EXCELLENT	MECHANICAL RESISTANCE	THERMAL RESISTANCE	CHEMICAL RESISTANCE
VERY GOOD			
GOOD			
MODERATE			

APPROPRIATE INDUSTRIES & APPLICATIONS

-  GENERAL PURPOSE
-  AUTOMOTIVE AND ENGINE BUILDING INDUSTRY
-  WATER SUPPLY
-  SHIPBUILDING
-  POTABLE WATER SUPPLY
-  REFRIGERATION AND COOLING
-  GAS SUPPLY
-  HEATING SYSTEMS
-  PETROCHEMICAL INDUSTRY
-  COMPRESSORS AND PUMPS
-  FOOD INDUSTRY
-  VALVES

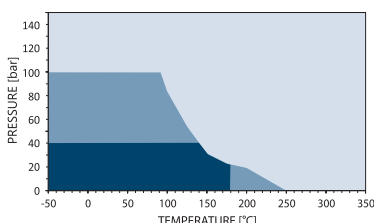
Composition	Aramid fibers, inorganic fillers, NBR binder		
	Optional steel wire mesh reinforcement		
Color	Blue		
Approvals	DVGW DIN 3535-6	SVGW DIN 3535-6	DVGW DIN 30653
	DVGW W270	ELL	TA Luft (VDI 2440)
	BAM (Oxygen)	WRAS	DNV GL
	ABS	AGA AS 4623	EC 1935/2004

TECHNICAL DATA Typical values for a thickness of 2 mm

Density	DIN 28090-2	g/cm ³	1.7
Compressibility	ASTM F36J	%	11
Recovery	ASTM F36J	%	60
Tensile strength	ASTM F152	MPa	14
Stress resistance	DIN 52913		
50 Mpa, 175 °C, 16 h		MPa	27
50 Mpa, 300 °C, 16 h		MPa	23
Specific leak rate	DIN 3535-6	mg/(s·m)	0.02
Thickness increase	ASTM F146		
Oil IRM 903, 150 °C, 5 h		%	2
ASTM Fuel B, 23 °C, 5 h		%	5
Compression modulus	DIN 28090-2		
At room temperature: ϵ_{KSW}		%	9.5
At elevated temperature: $\epsilon_{WSW/200\text{ °C}}$		%	16.1
Creep relaxation	DIN 28090-2		
At room temperature: ϵ_{KRW}		%	4.7
At elevated temperature: $\epsilon_{WRW/200\text{ °C}}$		%	0.8
Max. operating conditions			
Peak temperature		°C/°F	350/662
Continuous temperature		°C/°F	250/482
- with steam		°C/°F	200/392
Pressure		bar/psi	100/1450

P-T DIAGRAM

EN 1514-1, Type 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.

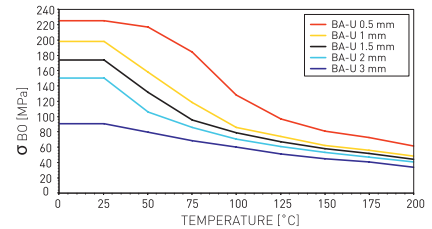
P-T diagram indicates the maximum permissible combination of internal pressure and service temperature which can be simultaneously applied for a given gasket's thickness, size and tightness class. Given the wide variety of gasket applications and service conditions, these values should only be regarded as a guidance for the proper gasket assembly. In general, thinner gaskets exhibit better P-T properties.

Surface finish	Standard: 4AS. Optional: graphite or PTFE
Sheet dimensions	Size (mm): 1500 x 1500 3000 x 1500 4500 x 1500 Thickness (mm): 0.5 1.0 1.5 2.0 3.0 Other sizes and thicknesses available on request
Tolerances	On length and width: ± 5 % On thickness up to 1.0 mm: ± 0.1 mm On thickness above 1.0 mm: ± 10 %

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

σ_{BO} DIAGRAM

DIN 28090-1



σ_{BO} diagram represents σ_{BO} values for different gasket material thicknesses. These values indicate the maximum in-service compressive pressures which can be applied on the gasket area involved without destructing or damaging the gasket material.

CHEMICAL RESISTANCE CHART

The recommendations made here are intended as a guideline for the selection of a suitable gasket type. As the function and durability of products are dependent upon a number of factors, the data may not be used to support any warranty claims. If there are specific type-approval regulations, these have to be complied with.

- + Recommended |
- o Recommendation depends on operating conditions |
- Not recommended |



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