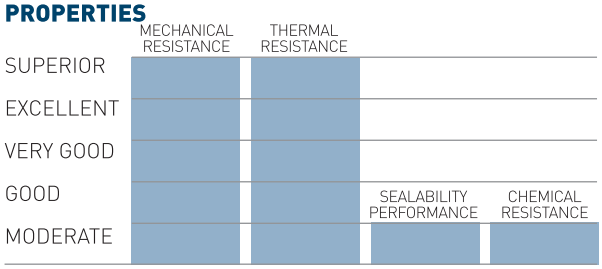
TESNIT® BA-R302

TESNIT® BA-R302 has superior thermal resistance coupled with excellent mechanical properties and blowout safety. It is designed for the most demanding high tempetrature applications, particularly shipbuilding.

PROPERTIES



APPROPRIATE INDUSTRIES & APPLICATIONS

- STEAM SUPPLY
- AUTOMOTIVE AND ENGINE BUILDING INDUSTRY
- SHIPBUILDING
- POWER PLANT
- HIGH TEMP. APPLICATIONS

Composition	Tanged carbon steel plate sandwiched betwen two TESNIT® BA-R300
Colour	Black
Approvals	DNV GL

TECHNICAL DATA Typical values for a thickness of 2 mm

Density	DIN 28090-2	g/cm³	3.7
Compressibility	ASTM F36J	%	8
Recovery	ASTM F36J	%	45
Tensile strength	ASTM F152	MPa	/
Stress resistance	DIN 52913		
50 Mpa, 175 °C, 16 h		MPa	48
50 Mpa, 300 °C, 16 h		MPa	45
Specific leak rate	DIN 3535-6	mg/(s·m)	/
Thickness increase	ASTM F146		
Oil IRM 903, 150 °C, 5 h		%	5
ASTM Fuel B, 23 °C, 5 h		%	/
Compression modulus	DIN 28090-2		
At room temperature: ε_{KSW}		%	7.1
At elevated temperature: $\varepsilon_{WSW/200\,°C}$		%	6.3
Creep relaxation	DIN 28090-2		
At room temperature: ε_{KRW}		%	2.2
At elevated temperature: $\varepsilon_{WRW/200\,°C}$		%	0.5
Max. operating conditions			
Peak temperature		°C/°F	650/1202
Continuous temperature		°C/°F	600/1112
- with steam		°C/°F	/
Pressure		bar/psi	/

Surface finish	Standard: 2G. Optional: graphite or PTFE
Sheet dimensions	Size (mm): 500 x 1400 Thickness (mm): 1.4 | 1.6 | 2.0 | 3.0 Other dimensions 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	+
Acetic acid, 10%	−
Acetic acid, 100% (Glacial)	−
Acetone	o
Acetonitrile	−
Acetylene (gas)	+
Acid chlorides	−
Acrylic acid	−
Acrylonitrile	−
Adipic acid	−
Air (gas)	+
Alcohols	+
Aldehydes	o
Alum	o
Aluminium acetate	−
Aluminium chlorate	−
Aluminium chloride	−
Aluminium sulfate	−
Amines	−
Ammonia (gas)	o
Ammonium bicarbonate	+
Ammonium chloride	−
Ammonium hydroxide	+
Amyl acetate	o
Anhydrides	−
Aniline	−
Anisole	o
Argon (gas)	+
Asphalt	+
Barium chloride	−
Benzaldehyde	−
Benzene	+
Benzoic acid	o
Bio-diesel	+
Bio-ethanol	+
Black liquor	−
Borax	+
Boric acid	−
Butadiene (gas)	+
Butane (gas)	+
Butyl alcohol (Butanol)	+
Butyric acid	−
Calcium chloride	−
Calcium hydroxide	+
Carbon dioxide (gas)	+
Carbon monoxide (gas)	+
Cellosolve	o
Chlorine (gas)	−
Chlorine (in water)	−
Chlorobenzene	o
Chloroform	−
Chloroprene	o
Chlorosilanes	−
Chromic acid	−
Citric acid	−
Copper acetate	−
Copper sulfate	−
Creosote	o
Cresols (Cresylic acid)	−
Cyclohexane	+
Cyclohexanol	+
Cyclohexanone	o
Decalin	+
Dextrin	+
Dibenzyl ether	o
Dibutyl phthalate	o
Dimethylacetamide (DMA)	o
Dimethylformamide (DMF)	o

Dioxane	−
Diphyl (Dowtherm A)	+
Esters	o
Ethane (gas)	+
Ethers	o
Ethyl acetate	o
Ethyl alcohol (Ethanol)	+
Ethyl cellulose	o
Ethyl chloride (gas)	−
Ethylene (gas)	+
Ethylene glycol	+
Formaldehyde (Formalin)	o
Formamide	o
Formic acid, 10%	−
Formic acid, 85%	−
Formic acid, 100%	−
Freon-12 (R-12)	+
Freon-134a (R-134a)	+
Freon-22 (R-22)	o
Fruit juices	+
Fuel oil	+
Gasoline	+
Gelatin	+
Glycerine (Glycerol)	+
Glycols	+
Helium (gas)	+
Heptane	+
Hydraulic oil (Glycol based)	+
Hydraulic oil (Mineral type)	+
Hydraulic oil (Phosphate ester based)	o
Hydrazine	−
Hydrocarbons	+
Hydrochloric acid, 10%	−
Hydrochloric acid, 37%	−
Hydrofluoric acid, 10%	−
Hydrofluoric acid, 48%	−
Hydrogen (gas)	+
Iron sulfate	−
Isobutane (gas)	+
Isooctane	+
Isoprene	+
Isopropyl alcohol (Isopropanol)	+
Kerosene	+
Ketones	o
Lactic acid	−
Lead acetate	−
Lead arsenate	−
Magnesium sulfate	+
Maleic acid	−
Malic acid	−
Methane (gas)	+
Methyl alcohol (Methanol)	+
Methyl chloride (gas)	o
Methylene dichloride	o
Methyl ethyl ketone (MEK)	o
N-Methyl-pyrrolidone (NMP)	o
Milk	+
Mineral oil (ASTM no.1)	+
Motor oil	+
Naphtha	+
Nitric acid, 10%	−
Nitric acid, 65%	−
Nitrobenzene	−
Nitrogen (gas)	+
Nitrous gases (NOx)	−
Octane	+
Oils (Essential)	+
Oils (Vegetable)	+

Oleic acid	−
Oleum (Sulfuric acid, fuming)	−
Oxalic acid	−
Oxygen (gas)	−
Palmitic acid	−
Paraffin oil	+
Pentane	+
Perchloroethylene	−
Petroleum (Crude oil)	+
Phenol (Carbolic acid)	−
Phosphoric acid, 40%	−
Phosphoric acid, 85%	−
Phthalic acid	−
Potassium acetate	−
Potassium bicarbonate	+
Potassium carbonate	+
Potassium chloride	−
Potassium cyanide	−
Potassium dichromate	−
Potassium hydroxide	o
Potassium iodide	−
Potassium nitrate	−
Potassium permanganate	−
Propane (gas)	+
Propylene (gas)	+
Pyridine	−
Salicylic acid	−
Seawater/brine	−
Silicones (oil/grease)	+
Soaps	+
Sodium aluminate	+
Sodium bicarbonate	+
Sodium bisulfite	−
Sodium carbonate	+
Sodium chloride	−
Sodium cyanide	−
Sodium hydroxide	o
Sodium hypochlorite (Bleach)	−
Sodium silicate (Water glass)	o
Sodium sulfate	+
Sodium sulfide	−
Starch	+
Steam	o
Stearic acid	−
Styrene	o
Sugars	+
Sulfur	o
Sulfur dioxide (gas)	o
Sulfuric acid, 20%	−
Sulfuric acid, 98%	−
Sulfuryl chloride	−
Tar	+
Tartaric acid	−
Tetrahydrofuran (THF)	−
Titanium tetrachloride	−
Toluene	+
2,4-Toluenediisocyanate	o
Transformer oil (Mineral type)	+
Trichloroethylene	−
Vinegar	−
Vinyl chloride (gas)	−
Vinylidene chloride	−
Water	o
White spirits	+
Xylenes	+
Xylenol	−
Zinc sulfate	−

All information and data quoted are based upon decades of experience in the production and operation of sealing elements. This data may not be used to support any warranty claims. With its publication this latest edition supersedes all previous issues and is subject to change without further notice.

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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Date of issue: 06.2020 / TDS-BAR302-05-2015