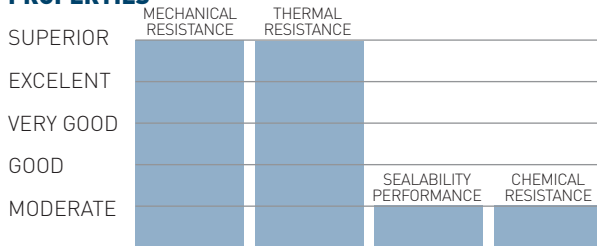




TESNIT® BA-R302 has superior thermal resistance coupled with excellent mechanical properties and blowout safety. TASNIT® BA-R302 is designed for the most demanding high temperature applications like those within ships' engines.

PROPERTIES



APPROPRIATE INDUSTRIES & APPLICATIONS

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

Composition	Tanged carbon steel sheet sandwiched with BA-R300.
Colour	Black
Approvals	Germanischer Lloyd

TECHNICAL DATA Typical values for a thickness of 2 mm

Density	DIN 28090-2	g/cm ³	3.7
Compressibility	ASTM F36J	%	8
Recovery	ASTM F36J	%	45
Tensile strength	ASTM F152	MPa	/
Stress resistance	DIN 52913		
16 h, 50 MPa, 175 °C		MPa	48
16 h, 50 MPa, 300 °C		MPa	45
Specific leak rate	DIN 3535-6	mg/(s·m)	/
Thickness increase	ASTM F146		
Oil IRM 903, 5 h, 150 °C		%	5
ASTM Fuel B, 5 h, 23 °C		%	/
Compression modulus	DIN 28090-2		
At room temperature: ϵ_{KSW}		%	7.1
At elevated temperature: $\epsilon_{WSW/200\text{ °C}}$		%	6.3
Percentage creep relaxation	DIN 28090-2		
At room temperature: ϵ_{KRW}		%	2.2
At elevated temperature: $\epsilon_{WRW/200\text{ °C}}$		%	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	Surface finish is 2G. Optional graphite or PTFE finish on request.
Dimensions of standard sheets	Sheet size (mm): 500 x 1400 Thickness (mm): 1.4 1.6 Other dimensions and thicknesses are available on request.
Tolerances	± 5 % on length and width On thickness up to 1.0 mm ± 0.1 mm On thickness above 1.0 mm ± 10 %

Acetamide	+	Dioxane	-	Oleic acid	-
Acetic acid, 10%	-	Diphytl (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%	-
Alcohols	+	Formaldehyde (Formalin)	?	Phosphoric acid, 85%	-
Aldehydes	?	Formamide	?	Phthalic acid	-
Alum	?	Formic acid, 10%	-	Potassium acetate	-
Aluminium acetate	-	Formic acid, 85%	-	Potassium bicarbonate	+
Aluminium chlorate	-	Formic acid, 100%	-	Potassium carbonate	+
Aluminium chloride	-	Freon-12 (R-12)	+	Potassium chloride	-
Aluminium sulfate	-	Freon-134a (R-134a)	+	Potassium cyanide	-
Amines	-	Freon-22 (R-22)	?	Potassium dichromate	-
Ammonia (gas)	?	Fruit juices	-	Potassium hydroxide	?
Ammonium bicarbonate	+	Fuel oil	+	Potassium iodide	-
Ammonium chloride	-	Gasoline	+	Potassium nitrate	-
Ammonium hydroxide	+	Gelatin	+	Potassium permanganate	-
Amyl acetate	?	Glycerine (Glycerol)	+	Propane (gas)	+
Anhydrides	-	Glycols	+	Propylene (gas)	+
Aniline	-	Helium (gas)	+	Pyridine	-
Anisole	?	Heptane	+	Salicylic acid	-
Argon (gas)	+	Hydraulic oil (Glycol based)	+	Seawater/brine	-
Asphalt	+	Hydraulic oil (Mineral type)	+	Silicones (oil/grease)	+
Barium chloride	-	Hydraulic oil (Phosphate ester based)	?	Soaps	+
Benzaldehyde	-	Hydrazine	-	Sodium aluminate	+
Benzene	+	Hydrocarbons	+	Sodium bicarbonate	+
Benzoic acid	?	Hydrochloric acid, 10%	-	Sodium bisulfite	-
Bio-diesel	+	Hydrochloric acid, 37%	-	Sodium carbonate	+
Bio-ethanol	+	Hydrofluoric acid, 10%	-	Sodium chloride	-
Black liquor	-	Hydrofluoric acid, 48%	-	Sodium cyanide	-
Borax	+	Hydrogen (gas)	+	Sodium hydroxide	?
Boric acid	-	Iron sulfate	-	Sodium hypochlorite (Bleach)	-
Butadiene (gas)	+	Isobutane (gas)	+	Sodium silicate (Water glass)	?
Butane (gas)	+	Isooctane	+	Sodium sulfate	+
Butyl alcohol (Butanol)	+	Isoprene	+	Sodium sulfide	-
Butyric acid	-	Isopropyl alcohol (Isopropanol)	+	Starch	+
Calcium chloride	-	Kerosene	+	Steam	?
Calcium hydroxide	+	Ketones	?	Stearic acid	-
Carbon dioxide (gas)	+	Lactic acid	-	Styrene	?
Carbon monoxide (gas)	+	Lead acetate	-	Sugars	+
Cellosolve	?	Lead arsenate	-	Sulfur	?
Chlorine (gas)	-	Magnesium sulfate	+	Sulfur dioxide (gas)	?
Chlorine (in water)	-	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 tetrachloride	-
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 (NOx)	-	Xylenes	+
Dibutyl phthalate	?	Octane	+	Xylenol	-
Dimethylacetamide (DMA)	?	Oils (Essential)	+	Zinc sulfate	-
Dimethylformamide (DMF)	?	Oils (Vegetable)	+		

CHEMICAL RESISTANCE CHART

The recommendations made here are intended to be a guideline for the selection of the suitable gasket quality. Because the function and durability of the products depend upon a number of factors, the data may not be used to support any warranty claims.

- + Recommended
- ? Recommendation depends on operating conditions
- Not recommended



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