



# TESNIT® BA-R300

TESNIT® BA-R300 has outstanding dynamic and thermal resistance. TESNIT® BA-R300 is designed for use in high temperature applications, like those within ships engines.



## PROPERTIES

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

## APPROPRIATE INDUSTRIES & APPLICATIONS

	STEAM SUPPLY
	AUTOMOTIVE AND ENGINE BUILDING INDUSTRY
	HIGH TEMP. APPLICATIONS

Composition	Engineered bio-soluble mineral fibers, inorganic fillers, NBR binder, tough carbon steel wire mesh insert.
Color	Black
Approvals	Germanischer Lloyd

## TECHNICAL DATA

Typical values for a thickness of 2 mm

<b>Density</b>	DIN 28090-2	g/cm <sup>3</sup>	3.2
<b>Compressibility</b>	ASTM F36J	%	10
<b>Recovery</b>	ASTM F36J	%	40
<b>Tensile strength</b>	ASTM F152	MPa	/
<b>Stress resistance</b>	DIN 52913		
16 h, 50 MPa, 175 °C		MPa	46
16 h, 50 MPa, 300 °C		MPa	40
<b>Specific leak rate</b>	DIN 3535-6	mg/(s·m)	/
<b>Thickness increase</b>	ASTM F146		
Oil IRM 903, 5 h, 150 °C		%	5
ASTM Fuel B, 5 h, 23 °C		%	/
<b>Compression modulus</b>	DIN 28090-2		
At room temperature: $\epsilon_{KSW}$		%	11.1
At elevated temperature: $\epsilon_{WSW/200\text{ }^{\circ}\text{C}}$		%	6.9
<b>Percentage creep relaxation</b>	DIN 28090-2		
At room temperature: $\epsilon_{KRW}$		%	3.4
At elevated temperature: $\epsilon_{WRW/200\text{ }^{\circ}\text{C}}$		%	0.4
<b>Max. operating conditions</b>			
Peak temperature		°C/°F	550/1022
Continuous temperature		°C/°F	450/842
- with steam		°C/°F	/
Pressure		bar/psi	/

Surface finish	Standard: 2G. Optional: graphite or PTFE on request.
Standard dimension of sheets	Size (mm): 1500 x 1400   Rolls Thickness (mm): 0.7   1.0   1.2   1.4   2.0   2.5   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	-
Acetic acid, 10%	-	Diphyl [Dowtherm A]	+
Acetic acid, 100% [Glacial]	-	Esters	?
Acetone	?	Ethane [gas]	+
Acetonitrile	-	Ethers	?
Acetylene [gas]	+	Ethyl acetate	?
Acid chlorides	-	Ethyl alcohol [Ethanol]	+
Acrylic acid	-	Ethyl cellulose	?
Acrylonitrile	-	Ethyl chloride [gas]	-
Adipic acid	-	Ethylene [gas]	+
Air [gas]	+	Ethylene glycol	+
Alcohols	+	Formaldehyde [Formalin]	?
Aldehydes	?	Formamide	?
Alum	?	Formic acid, 10%	-
Aluminium acetate	-	Formic acid, 85%	-
Aluminium chlorate	-	Formic acid, 100%	-
Aluminium chloride	-	Freon-12 (R-12)	+
Aluminium sulfate	-	Freon-134a (R-134a)	+
Amines	-	Freon-22 (R-22)	?
Ammonia [gas]	?	Fruit juices	-
Ammonium bicarbonate	+	Fuel oil	+
Ammonium chloride	-	Gasoline	+
Ammonium hydroxide	+	Gelatin	+
Amyl acetate	?	Glycerine [Glycerol]	+
Anhydrides	-	Glycols	+
Aniline	-	Helium [gas]	+
Anisole	?	Heptane	+
Argon [gas]	+	Hydraulic oil [Glycol based]	+
Asphalt	+	Hydraulic oil [Mineral type]	+
Barium chloride	-	Hydraulic oil [Phosphate ester based]	?
Benzaldehyde	-	Hydrazine	-
Benzene	+	Hydrocarbons	+
Benzoic acid	?	Hydrochloric acid, 10%	-
Bio-diesel	+	Hydrochloric acid, 37%	-
Bio-ethanol	+	Hydrofluoric acid, 10%	-
Black liquor	-	Hydrofluoric acid, 48%	-
Borax	+	Hydrogen [gas]	+
Boric acid	-	Iron sulfate	-
Butadiene [gas]	+	Isobutane [gas]	+
Butane [gas]	+	Isooctane	+
Butyl alcohol [Butanol]	+	Isoprene	+
Butyric acid	-	Isopropyl alcohol [Isopropanol]	+
Calcium chloride	-	Kerosene	+
Calcium hydroxide	+	Ketones	?
Carbon dioxide [gas]	+	Lactic acid	-
Carbon monoxide [gas]	+	Lead acetate	-
Cellosolve	?	Lead arsenate	-
Chlorine [gas]	-	Magnesium sulfate	+
Chlorine [in water]	-	Maleic acid	-
Chlorobenzene	?	Malic acid	-
Chloroform	-	Methane [gas]	+
Chloroprene	?	Methyl alcohol [Methanol]	+
Chlorosilanes	-	Methyl chloride [gas]	?
Chromic acid	-	Methylene dichloride	?
Citric acid	-	Methyl ethyl ketone [MEK]	?
Copper acetate	-	N-Methyl-pyrrolidone [NMP]	?
Copper sulfate	-	Milk	+
Creosote	?	Mineral oil [ASTM no.1]	+
Cresols [Cresylic acid]	-	Motor oil	+
Cyclohexane	+	Naphtha	+
Cyclohexanol	+	Nitric acid, 10%	-
Cyclohexanone	?	Nitric acid, 65%	-
Decalin	+	Nitrobenzene	-
Dextrin	+	Nitrogen [gas]	+
Dibenzyl ether	?	Nitrous gases [NOx]	-
Diethyl phthalate	?	Octane	+
Dimethylacetamide [DMA]	?	Oils [Essential]	+
Dimethylformamide [DMF]	?	Oils [Vegetable]	+

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.

⊕ Recommended

⊕ Recommendation depends on operating conditions

- Not recommended

