

TECHNICAL MATERIAL DATA SHEET

TESNIT® BA-55



DESCRIPTION

Tesnit® BA-55 is specifically manufactured for heating systems that utilise steam or mineral oils, however it is also suitable for other applications. Tesnit® BA-55 has very good thermal and chemical resistance.

Composition	Engineered bio-soluble mineral fibers, inorganic fillers, NBR binder
Color	Dark green (both sides)
Surface finish	Standard : 4AS On demand : Graphite, PTFE, ...
Approvals	DIN-DVGW DIN 3535-6 / DVGW VP 401 (5bar) / BAM (Oxygen) BS 7531 Grade X / DVGW VP 401 / TZW ELL / SVGW DIN 3535-6 EC 1935/2004 / DVGW W270

PROPERTIES

Mechanical resistance	Good
Thermal resistance	Superior
Sealability performance	Good
Chemical resistance	Very good

APPLICATIONS

Water	Chemical
Steam	Gas
Hydrocarbons	Air
Shipbuilding	

DIMENSIONS

Standard format (mm)	1500 x 1500 (+/-5%)
Other formats on demand (mm)	1000 x 1500 - 1500 x 3000 - 1500 x 4500 (+/-5%)
Thickness (mm)	0.50 - 1.00 - 1.50 - 2.00 - 3.00 (+/-10%)
Other thicknesses on demand (mm)	On demand
Tolerances	On length and width : +/-5% On thickness up to 1.00 mm : +/-0.10 mm On thickness above 1.00 mm : +/-10%



TECHNICAL DATA

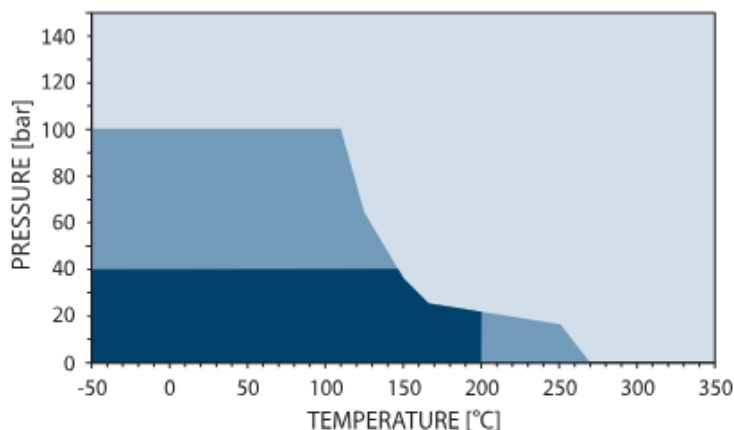
Typical value for a thickness of 2mm

Test description	Standard	Unit	Value
Density	DIN 28090-2	g/cm ³	1.80
Compressibility	ASTM F36J	%	7
Recovery	ASTM F36J	%	55
Tensile strength	ASTM F152	MPa	7
Stress resistance	DIN 52913		
16h, 50 MPa, 175°C		MPa	35
16h, 50 MPa, 300°C		MPa	30
Specific leak rate	DIN 3535-6		0.06
Thickness increase	ASTM F146		
Oil IRM 903, 5h, 150°C		%	8
ASTM Fuel B, 5h, 23°C		%	10
Compression modulus	DIN 28090-2		
At room temperature ϵ_{KSW}		%	7.6
At elevated temperature $\epsilon_{WSW/200^\circ C}$		%	11.4
Percentage creep relaxation	DIN 28090-2		
At room temperature ϵ_{KRW}		%	3.2
At elevated temperature $\epsilon_{WRW/200^\circ C}$		%	0.8
Max. operating conditions			
Peak temperature		°C/°F	350/662
Continuous temperature		°C/°F	270/518
- with steam		°C/°F	230/446
Pressure		bar/psi	100/1450



P-T DIAGRAM

EN 1514-1, Type IBC, PN40, DIN 28091-2 / 3.8, 2.0mm



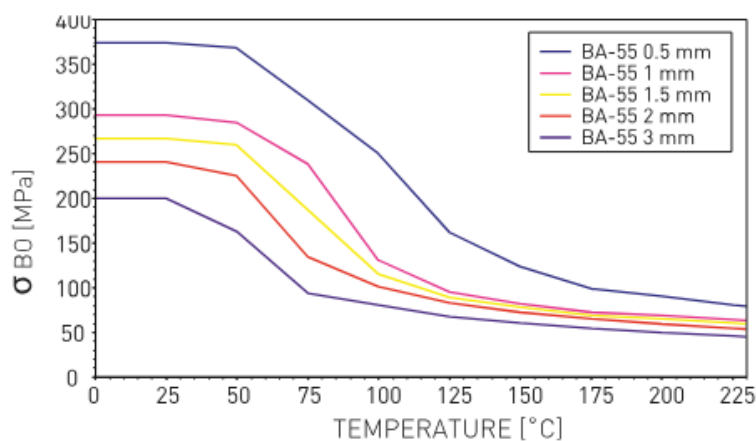
	General suitability – Under common installation practices and chemical compatibility.
	Conditional suitability – Appropriate measures ensure maximum performance for joint design and gasket installation. Technical consultation is recommended.
	Limited suitability – Technical consultation is mandatory.

P-T Diagrams indicate the maximum permissible combination of internal pressure and service temperature which can be simultaneously applied for a given gasket according material type, thickness, size and tightness class. Given the wide variety of gasket applications and service conditions, these values should only be regarded as guidance for the proper gasket assembly. In general, thinner gaskets exhibit better P-T properties.



σ_{BO} DIAGRAM

DIN 28090-1



σ_{BO} diagrams represent 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.

The technical specifications mentioned above are typical average values obtained using the test methods indicated and may therefore be subject to normal manufacturing variations.

They are provided for guidance only. They do not constitute a guarantee, and we recommend that you carry out a test before final implementation.