

GRAFILIT®

	SF	SL	SP	EM
Composition	Expanded natural graphite.	Expanded natural graphite, stainless steel foil insert (AISI 316; 0.05 mm).	Expanded natural graphite, tanged stainless steel sheet insert (AISI 316; 0.1 mm).	Expanded natural graphite, expanded stainless steel sheet insert (AISI 316L; 0.15 mm).
Colour	Black	Black	Black	Black
Properties	This material has excellent chemical and thermal resistance, combined with high compressibility.	Material designed for high operating pressures with excellent chemical and thermal resistance.	Material designed for high operating and surface pressures. It has excellent chemical and thermal resistance with blowout safety.	Material with excellent media resistance and blowout safety, even in applications with cycling loads, makes this material superior.
Appropriate industries	Water supply, chemical industry, petrochemical industry, refrigeration and cooling, high temp. applications.	Water supply, steam supply, chemical industry, power plant, heating systems, high temp. applications.	General purpose, steam supply, gas supply, chemical industry, heating systems, high temp. applications.	Steam supply, gas supply, chemical industry, petrochemical industry, heating systems, high temp. applications.
Approvals	DIN-DVGW DIN 3535-6, DVGW VP 401, BAM (Oxygen), Germanischer Lloyd	BAM (Oxygen)	DIN-DVGW DIN 3535-6, DVGW VP 401 (5 bar), API 607, BAM (Oxygen), Germanischer Lloyd	DIN-DVGW DIN 3535-6, TA-Luft (VDI 2440), ISO 10497

TECHNICAL DATA Typical values for a thickness of 1.5 mm

	DIN 28090-2	g/cm ³	1.0	1.3	1.5	1.4
Density	DIN 28090-2	g/cm ³	1.0	1.3	1.5	1.4
Compressibility	ASTM F36A	%	45	42	35	35
Recovery	ASTM F36A	%	13	15	17	20
Stress resistance	DIN 52913					
16 h, 50 MPa, 300 °C		MPa	49	49	49	49
Specific leak rate	DIN 3535-6	mg/(sm)	0.05	0.05	0.05	0.05
Leachable chloride content	FSA NMG 202	ppm	20	20	20	20
Leachable fluoride content	FSA NMG 203	ppm	20	20	20	20
Ash content of graphite	DIN 51903	%	<1	<1	<1	<1
Compression modulus	DIN 28090-2					
At room temperature: $\epsilon_{0.05}$		%	41	38	34	32
At elevated temperature: $\epsilon_{0.05/300^\circ\text{C}}$		%	0.9	1.2	1.2	2.5
Percentage creep relaxation	DIN 28090-2					
At room temperature: $\epsilon_{0.05}$		%	5.0	4.3	4.2	4.5
At elevated temperature: $\epsilon_{0.05/300^\circ\text{C}}$		%	4.0	3.6	3.3	3.5
Operating conditions						
Minimum temperature		°C/°F	-200/-328	-200/-328	-200/-328	-200/-328
Continuous temperature						
- oxidizing atmosphere		°C/°F	550/1022	550/1022	550/1022	550/1022
- reducing or inert atmosphere		°C/°F	700/1292	700/1292	700/1292	700/1292
Pressure						
- demanding gasses		bar/psi	30/435	60/870	60/870	80/1160
- steam, gasses		bar/psi	60/870	100/1450	130/1885	150/2175
- liquids		bar/psi	100/1450	140/2030	160/2320	180/2610

MICALIT®

	F	P
Composition	Mica flakes (phlogopite), silicon resin.	Mica flakes (phlogopite), silicon resin, tanged stainless steel sheet insert (AISI 316; 0.1 mm).
Colour	Yellowish-brown to green	Yellowish-brown to green
Properties	Material has excellent thermal and chemical resistance. It has good electrical insulation and low thermal conductivity properties.	Material has excellent thermal resistance, good chemical and mechanical resistance. It has good electrical insulation and low thermal conductivity properties.
Appropriate industries	Chemical industry, petrochemical industry, automotive and engine building industry, heating systems, high temp. applications.	Chemical industry, petrochemical industry, automotive and engine building industry, heating systems, high temp. applications.

Size (mm) 1000 x 1200

Thickness (mm) 0.4 - 3.0 (F) 1.5 | 2.0 | 3.0 (P)

TECHNICAL DATA Typical values for a thickness of 2 mm

	DIN 28090-2	g/cm ³	1.9	2.0
Density	DIN 28090-2	g/cm ³	1.9	2.0
Compressibility	ASTM F36J	%	20	20
Recovery	ASTM F36J	%	35	35
Loss on ignition	DIN 52811	%	<8	<5
Stress resistance	DIN 52913			
50 MPa, 16 h, 300 °C		MPa	38	42
Max. operating temperature		°C/°F	950/1742	950/1742

DONIFLEX®

	G-LD	G-MD	G-EM
Composition	Aramid fibres, natural graphite, inorganic fillers, NBR binder.	Aramid fibres, natural graphite, inorganic fillers, NBR binder.	Aramid fibres, natural graphite, inorganic fillers, NBR binder, expanded galvanized steel sheet insert (0.4 mm).
Colour	Grey	Grey	Grey
Properties	Material has very good chemical and thermal resistance. Material's high compressibility enables very good adaptability to uneven flange surfaces.	Material has very good chemical, thermal and mechanical properties. It has very good resistance to steam.	This material is distinguished by enhanced thermomechanical resistance in particular to surface pressure and blowouts in combination with enhanced sealing characteristics.
Appropriate industries	General purpose, chemical industry, petrochemical industry, paper and engine building industry, high temp. applications.	Petrochemical industry, paper and cellulose industries, automotive and engine building industry, shipbuilding, heating system, high temp. applications.	Steam supply, petrochemical industry, automotive and engine building systems, high temp applications.
Approvals	TA-Luft (VDI 2440)	Please inquire.	Please inquire.

TECHNICAL DATA Typical values for a thickness of:

		2 mm	1 mm	2 mm	
Density	DIN 28090-2	g/cm ³	1.2	1.4	1.7
Compressibility	ASTM F36J	%	35	20	20
Recovery	ASTM F36J	%	17	32	30
Tensile strength	ASTM F152	MPa	4.5	9	15
Stress resistance	DIN 52913				
50 MPa, 16 h, 175 °C		MPa	40	45	40
50 MPa, 16 h, 300 °C		MPa	35	40	35
Specific leak rate	DIN 3535-6	mg/(sm)	0.5	0.5	0.1
Thickness increase	ASTM F146				
Oil IRM 903, 5 h, 150 °C		%	3	5	8
ASTM Fuel B, 5 h, 23 °C		%	2	5	8
Weight increase	ASTM F146				
Oil IRM 903, 5 h, 150 °C		%	30	20	18
ASTM Fuel B, 5 h, 23 °C		%	25	17	18
Compression modulus	DIN 28090-2				
At room temperature: $\epsilon_{0.05}$		%	26	17	7
At elevated temperature: $\epsilon_{0.05/300^\circ\text{C}}$		%	5	5	7
Percentage creep relaxation	DIN 28090-2				
At room temperature: $\epsilon_{0.05}$		%	3.0	2.6	3.5
At elevated temperature: $\epsilon_{0.05/300^\circ\text{C}}$		%	0.5	0.2	0.7
Creep deformation					
Change in thickness at 20 °C, 50 MPa		%	33	18	18
Change in thickness at 300 °C, 50 MPa		%	8	10	8
Change in thickness at 400 °C, 50 MPa		%	17	15	10

DONIFLON®

Size (mm)

1500 x 1500

Thickness (mm)

0.5 | 1.0 | 1.5 | 2.0 | 3.0 | 4.0

1.5 | 6.0 (900E)

1.5 | 2.0 | 3.0

(2010, 2020, 2030)

	900E	2010	2020	2030
Composition	PTFE.	PTFE, hollow glass microbeads.	PTFE, silica.	PTFE, barium sulfate.
Colour	White	Blue	Pink	White
Properties	Expanded PTFE material suitable for nearly all media. Not suitable for molten alkali metals and fluorine compounds. Its excellent compressibility enables very good adaptability to pressure sensitive connections like ceramic-, plastic-, glass-lined piping.	Material suitable for nearly all media. Not suitable for molten alkali metals and fluorine compounds. Its high compressibility enables very good adaptability to pressure sensitive connections like ceramic-, plastic or glass flanges.	Material suitable for nearly all media, especially recommended for concentrated inorganic acids. Not suitable for molten alkali metals and fluorine compounds.	Material suitable for nearly all media especially recommended for strong alkalis. Not suitable for molten alkali metals and fluorine compounds.
Appropriate industries	Steam supply, chemical industry, petrochemical industry, food industry, heating systems.	Gas supply, chemical industry, pharmaceutical industry, food industry, refrigeration and cooling.	General purpose, potable water supply, chemical industry, petrochemical industry, pharmaceutical industry, food industry.	Potable water supply, steam supply, gas supply, chemical industry, petrochemical industry, pharmaceutical industry.
Approvals	Please inquire.	Please inquire.	Please inquire.	Please inquire.

TECHNICAL DATA Typical values for a thickness of 2 mm

	DIN 28090-2	g/cm ³	0.8	1.5	2.1	3.0
Density	DIN 28090-2	g/cm ³	0.8	1.5	2.1	3.0
Compressibility	ASTM F36J	%	55	35	7	6
Recovery	ASTM F36J	%	12	40	45	40
Tensile strength	ASTM F152	MPa	32	14	14	10
Stress resistance	DIN 52913					
30 MPa, 16 h, 150 °C		MPa	16	14	13	13
Specific leak rate	DIN 3535-6	mg/(sm)	0.002	0.002	0.002	0.002
pH range			0-14	0-14	0-14	0-14
Operating conditions						
Minimum temperature		°C/°F	-200/-328	-200/-328	-200/-328	-200/-328
Maximum temperature		°C/°F	260/500	260/500	260/500	260/500
Pressure		bar/psi	100/1450	60/870	80/1160	80/1160



TESNIT®

DONIFLEX®

GRAFILIT®

DONIFLON®

MICALIT®

QUALITY AND EXPERIENCE YOU CAN RELY ON

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BASIC SHEET FEATURES

Table with columns: Size (mm), Thickness (mm), Surface finish, and Tolerances. It lists various dimensions and finish options for different product types.



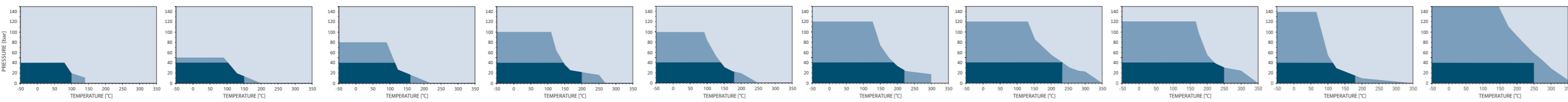
Product specification table for BA-202, BA-203, BA-50, BA-55, BA-U, BA-CF, BA-M, BA-GL, BA-R, BA-REM, BA-R300, and BA-R302. Columns include Composition, Colour, Properties, Appropriate industries, and Approvals.

TECHNICAL DATA Typical values for a thickness of 2 mm [BA-REM 1.5 mm]

Large technical data table with columns for various properties: Density, Compressibility, Recovery, Tensile strength, Stress resistance, Specific leak rate, Thickness increase, Compression modulus, Percentage creep relaxation, Maximum operating conditions, and Pressure.

P-T DIAGRAM EN 1514-1, Type IBC, PN 40, DIN 28091-2 / 3.8, 2 mm

- Legend for P-T diagrams: General suitability, Conditional suitability, Limited suitability.



P-T diagrams indicate the maximum allowed combination of internal pressure and service temperature which can be applied simultaneously for a given gasket depending on its material type, thickness, size and tightness class.

Chemical resistance chart for Tesnit products

The recommendations made here are intended as a guideline for the selection of a suitable gasket. The function and durability of these products depends upon a number of factors.

- Legend for chemical resistance: + Recommended, ? Recommendation depends on operating conditions, - Not recommended.

Chemical resistance chart table with columns for product types and rows for various chemical substances. Cells contain symbols (+, ?, -) indicating compatibility.