POWER®*flon* BG-S

Product name:	POWER®flon BG-S	Material data sheet No.:	D – 0078-0-EN	Date:	16. 05. 2022
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Material properties:

POWER®*flon* BG-S is a large gasket sheet produced from 100% pure, biaxially expanded PTFE (Polytetrafluorethylen). The whole production process is subject to strict quality control, registered under ISO 9001.

Application areas:

POWER®*flon* BG-S is - because of its excellent malleability and flexibility - very well suited to compensate for uneven and/or damaged gasket surfaces, as well as for all pressure- and tension-sensitive joints. **POWER®*flon* BG-S** can be easily cut or punched into any required shape and form.
A special stretching process ensures nearly equal tensile strength in all directions. As a result, the material changes only its thickness under compression, not its width or length. This makes it particularly suitable for applications with a narrow sealing area or where a defined gasket width (under pressure) is needed. Typical application areas are flanged joints, pump-, transmission- and compressor-housings, hand- and man-holes, ventilation systems, heat exchangers etc.

Advantages:

- quick and easy to install
- used gasket can be removed easily and without residue
- the excellent malleability of **POWER®*flon* BG-S** makes repairing of small damages and/or irregularities on the sealing area (gasket surface) unnecessary
- very versatile because of exceptionally good chemical and thermal stability
- less chance of using wrong gasket material (= less down time) because **POWER®*flon* BG-S** can be used for most applications
- gaskets cut from **POWER®*flon* BG-S** can be used in places where the flanged connection can not be opened far enough to allow the use of our expanded PTFE-gasket-tape **POWER®*flon* BG**

FMPA approved for use with foodstuffs, suitable for oxygen applications. **POWER®*flon* BG-S** is physiologically harmless. It has no smell or taste, it is non-toxic and does not contaminate, will not be attacked by micro-organisms or fungi.

Technical data:

Sheet dimensions: 1500 × 1500 mm, 1000×1100 mm
Thickness: 0,5 • 1,0 • 1,5 • 2,0 • 3,0 • 5,0 • 6,0 mm

Temperature range	from –268 °C up to +260 °C
Chemical resistance	chemically inert against all substances (pH 0-14), including the most aggressive acids and lyes. The only exception are molten alkali metals and elemental fluorine at high temperatures and pressures.
Pressure	from vacuum up to 200 bar
Density	0,85 g/cm^3, +/- 0,1g/cm^3
Ageing	**POWER®*flon* BG-S** is not subject to ageing or weathering
Colour	white

Certification:

- **TA-Luft**
- **FDA/ISEGA**
- **BAM**

Pokorny industries s.r.o.
Trnkova 115, 628 00 Brno
Czech Republic
telefon: +420 532 196 711
info@pokornyindustries.com

Environmentally friendly

QUALITY SYSTEM CERTIFICATION DNV ISO 9001

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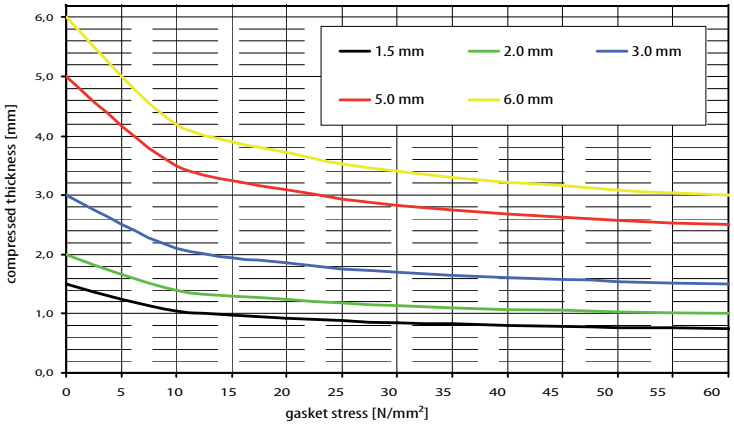
Technical data:

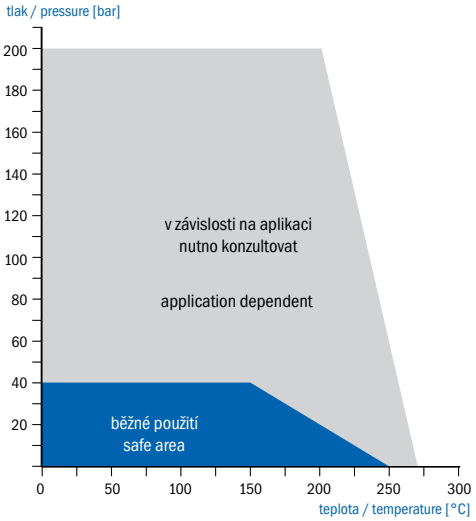
Parameter	Standard / Conditions	Value
Temperature range		-268°C up to 260 °C
Pressure		vakuum up to 40 bar
pH		0 - 14
P × T max.:	thickness 1,5 mm	12,000 (bar × °C)
P × T max.:	thickness 3,0 mm	8,000 (bar × °C)
Gasket factors	***according to ASTM***	
Compressibility	ASTM F 36M (34,5 MPa)	> 45 %
Recovery	ASTM F 36M (34,5 MPa)	>10 %
Creep	ASTM F 38 (100 °C)	≤ 22 %
Gasket factors	***according to DIN28090-2***	
Compression ε_{KSW}	room temperature	35 - 40 %
Creep relaxation ε_{KRW}	room temperature	>3 %
Compression ε_{WSW}	higher temperature	<15 %
Tensile strength	ASTM F 152	>20 MPa
Density	ASTM D 792	0,9 g/cm^3
Těsnost	DIN 3535-6 (40 bar, N2)	< 0,01 cm^3/min
Gasket factor „m“	ASTM (thickness 3,0 mm)	2
Minimum gasket stress „Y Stress“	ASTM / thickness 3 mm	2800 psi

ASTM test: thickness of the sheet 0,8 mm and DIN test: thickness of the sheet 1,5 mm.

Deformation of gasket thickness



P-T diagram



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