

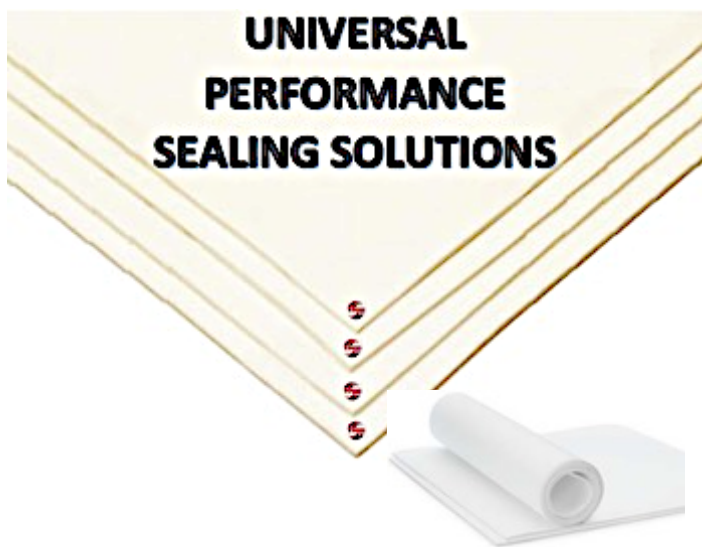


PROVEN • DURABLE • RELIABLE • VERSATILE

Put It On & Go To Sleep



Expanded PTFE Universal Solutions Gasket Sheet



**UNIVERSAL
PERFORMANCE
SEALING SOLUTIONS**

eSheet™ Expanded PTFE Sheet is a high performance sheet gasket material made of multi-directionally expanded virgin PTFE. It is a soft, form-in-place gasket material that conforms to almost any sealing surface. It is capable of withstanding a wide range of pressure, temperature and chemical environments. Due to its highly fibrillated microstructure, it has excellent creep resistance compared with other PTFE products.

Approvals & Certifications

FDA & EU Reg 10/2011:	Food Contact
TA LUFT VDI 2440:	Emission Control
BAM:	Oxygen Service
DVGW DIN 3535-6:	Gas Supply
USP Class VI	Biocompatibility

eSheet™ Expanded PTFE Gasket Sheet Specifications

Pressure Range	Full Vacuum to 3,000 psi
Temperature Range	-450°F to +525°C (-268°C to +273°C) Continuous -450°F to +600°C (-268°C to +316°C) Intermittent
Maximum P x T (psi x °F)	350,000
pH Range	0 – 14 (resistant to all common chemicals, except molten alkali metals and elemental fluorine)

eSheet™ Expanded PTFE Gasket Sheet Ideal Applications

- Raise Face & Flat Face Flanges
- Rough, Scratched, Pitted & Otherwise Damaged Flanges
- Pump & Compressor Housing Flanges
- Heat Exchangers
- Metal, Plastic & Glass Lined Flanges
- Round, Oval, Rectangular, Complexed & Irregular Flanges
- Boiler & Pressure Vessel Manholes & Handholes
- Misc. Lids, Access Plates, Ducts, etc.

eSheet™ Expanded PTFE Gasket Sheet Available Sizes

Width		Length		Thickness	
Inch	Millimetre	Inch	Millimetre	Inch	Millimetre
59"	1498.6 mm	59"	1498.6 mm	1/32"	0.79 mm
59"	1498.6 mm	59"	1498.6 mm	0.040"	1.02 mm
59"	1498.6 mm	59"	1498.6 mm	1/16"	1.59 mm
59"	1498.6 mm	59"	1498.6 mm	1/8"	3.18 mm
59"	1498.6 mm	59"	1498.6 mm	3/16"	4.76 mm
59"	1498.6 mm	59"	1498.6 mm	1/4"	6.35 mm
29"	736.6mm	59"	1498.6 mm	1/32", 1/16", 1/8", 1/4"	0.79 mm, 1.59 mm, 3.18 mm, 6.35 mm
29"	736.6mm	29"	736.6mm	1/32", 1/16", 1/8", 1/4"	0.79 mm, 1.59 mm, 3.18 mm, 6.35 mm

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TYPICAL PHYSICAL PROPERTIES	
Compressibility ASTM F36	61%
Recovery ASTM F36	18%
Tensile Strength ASTM F152	3200 psi (22 MPa)

DESIGN VALUES	
"m" factor	2.5
"Y" factor	2900 psi (20 MPa)
P x T (psi x °F) maximum	350,000

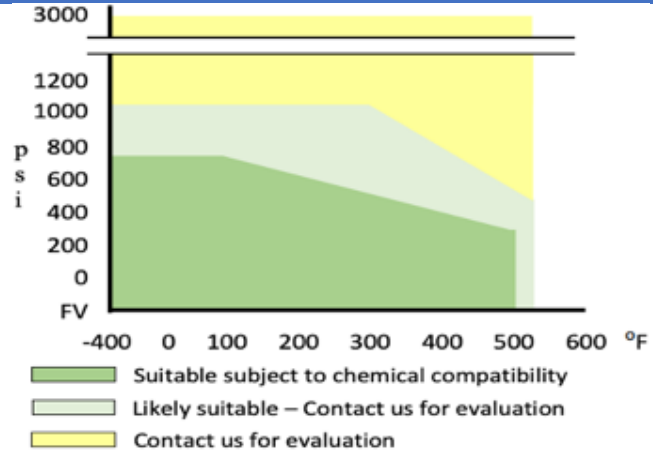
SEALABILITY

EN 13555 (Gasket Thickness = 1/8")		
Tightness Class, L	Gasket Stress MPa (psi)	Conditions
Qmin / L0.01	18 (2,610)	He 10 bar (145 psi)
Qsmin / L0.01	5 (725)	
Qmin / L0.01	27 (3,915)	He 40 bar (580 psi)
Qsmin / L0.01	10 (1,450)	
Qmin / L 0.0001	33 (4,785)	He 10 bar (145 psi)
Qsmin / L 0.0001	5 (725)	
Qmin / L 0.0001	38 (5,510)	He 40 bar (580 psi)
Qsmin / L 0.0001	19 (2,755)	
TA LUFT (VDI2440)	Leak Rate = 4.4E-07 mbar x l / (s x m) < 1.0E-04 mbar x l / (s x m)	PASS

RELAXATION

EN 13555 (Relaxation Ratio, PQR for Stiffness C = 500 kN/mm and Gasket Thickness = 1/8"		
Gasket Stress	PQR	Temperature
30 MPa (4,350 psi)	0.92	25°C (77°F)
30 MPa (4,350 psi)	0.42	150°C (302°F)
30 MPa (4,350 psi)	0.34	230°C (446°F)
50 MPa (4,350 psi)	0.92	25°C (77°F)
80 MPa (4,350 psi)	0.91	25°C (77°F)
ASTM F38 Creep Relaxation		21%

PERFORMANCE



HOT BLOWOUT TESTING (Gasket Thickness = 1/8")

HOBT2 with Temperature Cycles
Class 300 (1010 psi) – Reserve Temperature 500°F
HOBT2 without Temperature Cycles
Class 150 – No blowout at maximum test temperature of 700°F (371°C) @ 435 psi (30bar) ¹
HOBT1 (Constant Temperature with Increasing Pressure)
Single Test – No blowout at maximum test pressure of 2500 psi (172 bar) @ 302°F (150°C) ¹
¹ Result represents test data, not rating

OXYGEN & GAS CERTIFICATIONS

BAM – Gaseous Oxygen Service	16bar (230 psi) @ 60°C (140°F)
DVGW – Gas DIN 3535-6	Leak Rate = 6.2E-03 mg / (s x m) < 0.1 mg / (s x m) PASS

CRUSH STRENGTH (Gasket Thickness = 1/8")

QSMAX, MPa (psi)	PQR	Temperature
200 (29,000)	0.94	25°C (77°F)
50 (7,250)	0.41	150°C (302°F)
40 (5,800)	0.34	230°C (446°F)

CHARACTERISTICS

- **COMPATIBLE WITH MOST CHEMICALS** eSheet™ is 100% pure Polytetrafluoroethylene (PTFE). There are no fillers or binders to limit chemical compatibility. eSheet™ can be used in virtually any service.
- **SOFT AND CONFORMABLE** Upon compression, eSheet™ conforms to surface irregularities, making it ideal for rough, pitted, scratched or otherwise damaged flange surfaces.
- **UNLIMITED SHELF LIFE** eSheet™ exhibits no age deterioration, and as a result has unlimited shelf life.
- **RESISTS CREEP AND COLD FLOW** Unlike molded/skived PTFE which are highly subject to creep, eSheet™ exhibits good creep and cold flow resistance, along with good bolt torque retention.
- **DIMENSIONALLY STABLE** eSheet™ retains its width upon compression, making it ideal for use in narrow flanges.
- **U-V RESISTANT** eSheet™ is not affected by ultraviolet, and is resistant to oxidation, discoloration and embrittlement.
- **FLAME RESISTANT** eSheet™ is flame-resistant due to its high melting point and auto-ignition temperature.

QUALITY ASSURANCE

ISO 9001	ISO14001	OHSAS 18001
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