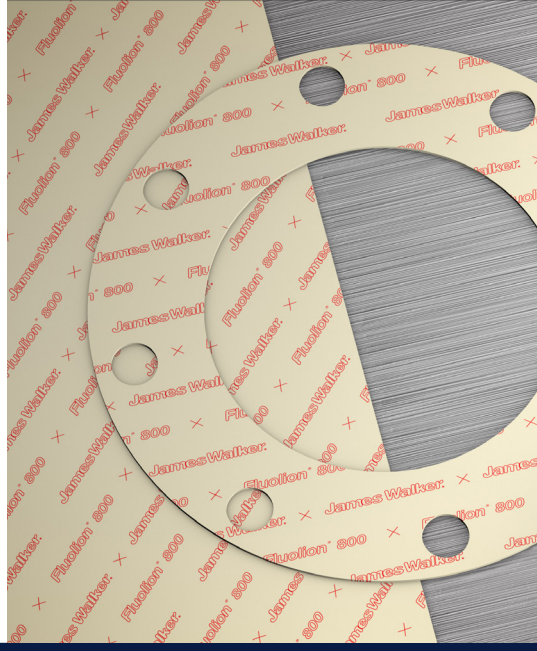
Fluolion®
800

Structured PTFE filled with barium sulphate

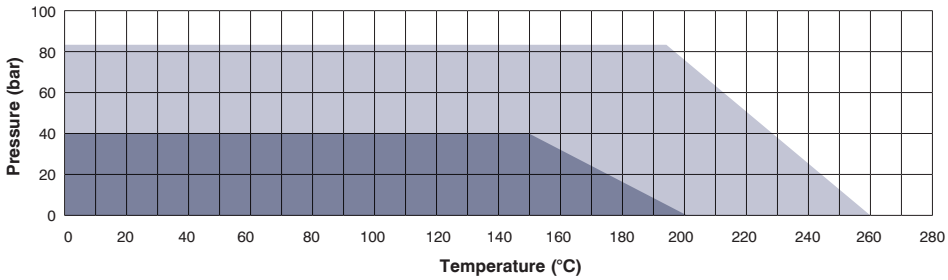


Fluolion® 800 is a structured virgin PTFE filled with barium sulphate. The sheets are manufactured by a unique process which overcomes the creep relaxation and cold flow problems typically associated with skived PTFE sheets and gaskets.

Application guidelines

Fluolion 800 is a universal gasket sheet material suitable for use in a wide variety of aggressive media including most acids, caustics, hydrocarbons, refrigerants, solvents, steam and water. Fluolion 800 is suitable for applications with the toughest demands on purity.

For more detailed information regarding chemical compatibility, it is recommended that the James Walker Chemical Compatibility Guide or our technical team is consulted, particularly for extremely aggressive media.



Pressure versus temperature capability graph

The Pressure x Temperature graph indicates the service limits considering the simultaneous influence of temperature and pressure. The darker shaded area represents the normal safe limitation for the combinations of temperature and pressure. It is recommended that, for all applications falling outside the darker shaded area, you seek guidance from James Walker to assess the suitability of the material in your specific application. Sealed media may influence the service limits in a specific application. Please contact James Walker for confirmation of suitability.

TEMPERATURE

Maximum Temperature:
+260°C (+500°F)
Minimum Temperature:
Cryogenic and below

PRESSURE

Maximum Pressure:
8.3 MPa/83 bar (1203 psi)

CHEMICAL COMPATIBILITY

pH 0-14

APPROVALS

Shell MESC SPE 85/300 - 3.3.2
(EC) Nr. 1935/2004
(EC) No. 2023/2006
(EU) No. 10/2011
U.S. FDA 21 CFR 170.39

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Typical physical properties

Property	Test method	Parameters	Typical physical property
Colour	-	-	Off -white (no dye)
Compressibility	ASTM F36M	34.5 MPa	4% - 10%
Recovery	ASTM F36M	34.5 MPa	40%
Tensile strength	ASTM F152	-	14 MPa (2030 psi)
Creep relaxation	ASTM F38	100°C (212°F)	24%
Residual stress	DIN 52913	-	16 MPa (2320 psi)

Typical performance

Leakage rate	DIN 3535-6	N_2, 40bar	< 0.01ml/minute
Specific leakage rate	VDI 2440 / TA Luft	-	5.90 x 10^{-7}mbar.l/(s.m)

Gasket factors according to DIN28090-2			
Compression εKSW	DIN 28090-2	RT	> 1.5%
Creep relaxation εKSW	DIN 28090-2	RT	> 0.5%
Compression εKSW	DIN 28090-2	Elevated temperature	< 30%

ASME gasket factors		
	1.5 mm thick	3.0 mm thick
Gasket factor “m”	2	2
Minimum gasket stress “y”	12.4 MPa (1800 psi)	10.3 MPa (1500 psi)

Availability

Sheet size	Thickness
1200 mm x 1000 mm	1.0 mm
1500 mm x 1500 mm	1.5 mm, 2.0 mm, 3.0 mm

Statements of compliance to regulations for food and pharmaceutical use are available on the James Walker website.