

TEALON TF 1590

Description:

TEALON TF 1590 is a structured PTFE - Gasket - Sheet manufactured by a unique process which provides a high level of fibrillation to overcome the creep relaxation and cold flow problems associated with normal (skived or moulded) PTFE sheets. **TEALON TF1590** is produced from virgin PTFE resin filled with Silica.

Advantages:

- It is suitable for services with high pressures and temperature, especially in chemical processing and hydrocarbon plants in strong acids (except hydrofluoric), solvents, hydrocarbons, water, steam, and chlorine.
- **TEALON TF 1590** is quick and simple to install. The used gasket can be removed easily and without residue.

Properties:

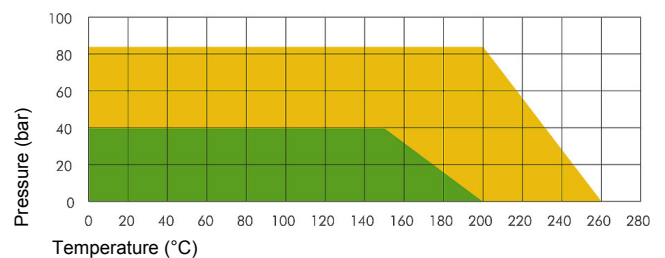
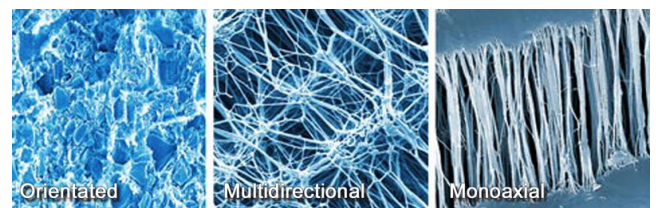
- Color: fawn
- Size: Sheets of 1500 mm x 1500 mm
- Thickness: 1.5 mm up to 3.2 mm (other thicknesses on request)
- Temperature: -268 °C to +260 °C
- Chemical resistance: chemically inert against all substances (pH 0-14), including the most aggressive acids and moderate lyes. It is not suitable for molten alkali metals and elemental fluorine at high temperature and pressure.
- Operating Pressure: max. 83 bar
- Ageing: **TEALON TF 1590** is not subject to ageing or weathering. It can be stored indefinitely.
- **TEALON TF 1590** complies to FDA requirements for food, is physiologically harmless and suitable for oxygen applications.

Approvals:

- TA Luft
- Blow-Out
- FDA
- EC 1935/2004 • EU 10/2011
- DVGW
- Air Liquide
- W270
- ABS
- Chlorine Institute (Pamphlet 95)
- WRAS

Tests:

- BAM



P x T diagram:

The P x T diagram above indicates the service limits considering the simultaneous influence of pressure and temperature (chemical suitability assumed). The green area represents the normal service limits, while the orange-colored area shows the maximum application limits.

Since all properties, specifications and application parameters shown throughout this catalogue are approximate and may be mutually influenced, your specific application should not be undertaken without independent study and evaluation for suitability. All technical data and advice given is based on experiences TEADIT® has made so far. Failure to select proper sealing products can result in damage and/or personal injury. Properties, specifications and application parameters are subject to change without notice. TEADIT® does not undertake any liability of any kind whatsoever. Please note: the color of the actual product might vary from the above image on this data-sheet.

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Technical Parameters	Unit	TEALON TF 1590
Thickness	[mm]	0,50 - 6,40
Sheet dimensions	[mm]	1500 x 1500
Filler		Silica
Color material		Fawn
Color printing		Blue
Operating Temperature Range	[°C]	- 268 to + 260
Operating pressure	[bar]	Vacuum to 83
Gasket factors acc. DIN28090-2		
Compression (room temperature) ϵ_{KSW}	[%]	>1,5
Creep relaxation (room temperature) ϵ_{KRW}	[%]	>0,5
Compression (elevated temperature) ϵ_{VSW}	[%]	<20
Gasket factors acc. ASTM		
Compressibility ASTM F 36M (34,5 MPa)	[%]	5 - 15
Recovery ASTM F 36M (34,5 MPa)	[%]	40
Creep ASTM F 38 (100 °C)	[%]	18
Other Properties		
Residual stress DIN 52913	MPa	16
Leakage rate TA Luft / VDI 2440	mbar*l/(s*m)	1,1*10 ⁻⁶
Leakage rate DIN 3535-6 (40bar, N ₂)	ml/min	<0,01
Tensile strength ASTM F 152	MPa	14
Gasket factor "m" ASTM		3,8 (for 2,0 mm)
Minimum gasket stress "y Stress" ASTM	psi	2300 (for 2,0 mm)

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