

TEALON TF 1590

Rev.Nr.: 02/300305

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.

Properties:

Colour: fawn

Size: Sheets of 1500 mm x 1500 mm in 1.5 mm, 2.0 mm and 3.0 mm thickness

Temperature: -210°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 temperatures and pressures.

Operating Pressure: max. 83 bar

Ageing: TEALON TF 1590 is not subject to ageing or weathering. It can be stored indefinitely.

Safety: TEALON TF 1590 complies to FDA requirements for food, is physiologically harmless and is suitable for oxygen applications.



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.

Approvals

FDA: conforms to the FDA's Perfluorocarbon regulation.

TA Luft: exceeding requirements of Technical Instruction on Air Quality

BAM: approved for use with oxygen

DVGW: approved for gas and water pipes

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TEADIT INTERNATIONAL PRODUKTIONS GMBH

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Since all properties, specifications and application parameters shown throughout this product information 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 liability of any kind whatsoever.

The power of elements



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Property	Test Method	Nominal Value	Parameters
Density [g/cm ³]	ASTM D 792	2.1	
Compressibility [%]	ASTM F 36 A	10	$\sigma = 34 \text{ MPa}$
Recovery [%]	ASTM F 36 A	40	$\sigma = 34 \text{ MPa}$
Compressibility ϵ_{KSW} [%]	DIN 28090 - 2	6	$\sigma = 20 \text{ MPa}$
Recovery ϵ_{KRW} [%]	DIN 28090 - 2	2.2	$\sigma = 20 \text{ MPa}$
Tensile strength [MPa]	ASTM 152	14	Room temperature
Creep deformation [%]	ASTM F38	18	
Stress retention [MPa]	DIN 52913	13	30N/mm ² , 150°C, 16h
Sealability [ml/h]	ASTM F 37 A	0.2	0.7 bar
$Q_{\text{min}, 0.01}$ [MPa]	prEN 13555	21	He, 40 bar
$Q_{\text{Smin}, 0.01}$ [MPa]	prEN 13555	< 10	He, 40 bar
$Q_{\text{min}, 0.001}$ [MPa]	prEN 13555	29	He, 40 bar
$Q_{\text{Smin}, 0.001}$ [MPa]	prEN 13555	< 10	He, 40 bar
Q_{crit} [MPa]	prEN 13555	> 240	Room temperature
Q_{SMAX} [MPa]	prEN 13555	> 240	Room temperature
E_0 [MPa]	prEN 13555	663	Room temperature
K_I [1]	prEN 13555	25	Room temperature
Sealability [cm ³ /min]	DIN 3535	< 0.015	N ₂ , 40 bar, 32 MPa
Specific leakage rate L [mbar · l / (s · m)]	VDI 2440 / TA LUFT	$1.1 \cdot 10^{-6}$	He, 1bar, 30 MPa

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