



## TEADIT® 30 SH

**A NEW** HIGH-TECH EXPANDED PTFE-SHEET WITH  
SIGNIFICANTLY IMPROVED CHARACTERISTICS

TEADIT SOLUTION TO  
EN1591-1 (2014) FOR PTFE GASKETS



Sealing for a safer and greener tomorrow

## TEADIT® 30 SH

### TEADIT solution to EN1591-1 (2014) for PTFE gaskets

Since the revision of the calculation standard EN1591 (2014 version), pressure has strongly increased to improve certain parameters by the manufacturers of PTFE sheets and gaskets.

The revised version of this standard demands substantially improved mechanical material properties for successful flange calculations. In particular, the flow behavior has a great influence on the calculations as well as on the maximum permissible surface pressure.

The significant improvement in the new Teadit 30 SH ePTFE

gasket sheet is credited to a much more homogeneous and considerably finer fibrillation. The VCI (German Chemical Industry Association) guideline for flange assemblies requires in "Appendix C" a minimum PQR value of 0,45 (under maximum operating temperature). On this basis, Teadit 30 SH meets the requirement with a maximum permissible operating temperature for PTFE i.e. 260°C. Filled restructured PTFE materials, as well as other expanded PTFE sheets simply cannot keep up with these requirements.

The strategic improvements of the new Teadit 30 SH material are also reflected in the maximum permissible gasket stress  $Q_{smax}$ . According to EN13555 the shrinking of the inner diameter must be considered for  $Q_{smax}$  determination. While the  $Q_{smax}$  value for most PTFE gaskets has to be significantly reduced, particularly at elevated temperatures, this is not the case with Teadit 30 SH gaskets!

The data-sheets according to EN13555 have already been uploaded at <http://www.gasketdata.org/> where you can see the outstanding mechanical properties of the product.

All relevant approvals for the new Teadit 30 SH - like TA-Luft, safety of blow-out, FDA and 1935/2004 - are already available. Teadit 30 SH sheets are available on short call, both in printed and/or embossed version.

This and more news available at our new website <http://www.teadit.eu>

## TEADIT® 30 SH

### A new high-tech expanded PTFE-sheet with significantly improved characteristics

#### Description:

TEADIT 30 SH is a highly advanced, large gasket-sheet, produced from 100% pure, multi-directionally expanded PTFE, for extreme application conditions.

#### Advantages:

- The newly developed TEADIT 30 SH expanded PTFE gasket sheet provides - due to its much more homogeneous and considerably finer fibrillation - a **drastically improved creep resistance** compared to other ePTFE sheet materials, especially at elevated temperatures.
- With TEADIT 30 SH it is possible to make flange **calculations according to EN 1591-1 (2014 version)** for all dimensions.
- TEADIT 30 SH is suitable for all types of flanges, nearly all media, a wide temperature range and particularly for applications with the toughest demands on purity.
- TEADIT 30 SH has exceptional mechanical strength which allows operation with **minimal creep at elevated temperatures**.
- The excellent malleability of TEADIT 30 SH makes repairing of small defects and/or irregularities of the sealing area (flange surface) unnecessary.

#### Tests:

BAM

#### Approvals:

TA-Luft, FDA, WRAS, USP Class VI, DVGW, Blow-out VDI 2200, EU 1935/2004, EU 10/2011

#### TEADIT® Deutschland GmbH

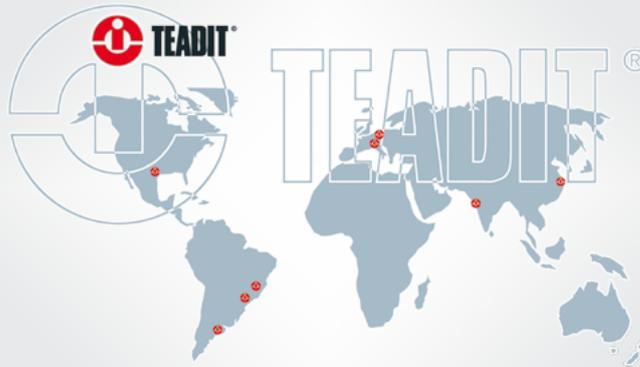
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- TEADIT 30 SH is quick and easy to install. The used gasket can be removed effortlessly without residue.

#### Properties:

- Chemical resistance: chemically inert against all substances (pH 0-14), including the most aggressive acids and lyes. The only exceptions are molten alkali metals and elemental fluorine at high temperature and pressure.
- TEADIT 30 SH is not subject to aging or weathering. It can be stored indefinitely.
- TEADIT 30 SH complies with FDA regulations 21CFR § 177.1550, it is physiologically harmless.
- Typically TEADIT 30 SH sheets come printed in red color.
- For applications in the pharmaceutical or food industry, sheets can be delivered with embossed printing without any color.

TEADIT 30 SH		
Technical Parameters	Unit	TEADIT 30 SH
Thickness	[mm]	0,50 - 9,00
Sheet dimensions	[mm]	1500 x 1500
Purity ePTFE	[%]	100
Color material		plain white
Color printing		red (or embossed)
Operating Temperature Range	[°C]	- 268 to + 260
Operating pressure	[bar]	Vacuum to 200
<b>Gasket factors acc. DIN28090-2</b>		
Compression (room temperature) εKSW	[%]	35 - 40
Creep relaxation (room temperature) εKRW	[%]	>3
Compression (elevated temperature) εWSW	[%]	<15
<b>Gasket factors acc. ASTM</b>		
Compressibility ASTM F 36M (34,5 MPa)	[%]	>45
Recovery ASTM F 36M (34,5 MPa)	[%]	>10
Creep ASTM F 38 (100 °C)	[%]	≤22
<b>Other Properties</b>		
Residual stress DIN 52913	MPa	>18
Leakage rate TA Luft / VDI 2240	mbar·l/(s·m)	8,3·10 <sup>-7</sup>
Leakage rate DIN 3535-6 (40bar, N2)	ml/min	<0,01
Tensile strength ASTM F 152	MPa	>25
Gasket factor "m" ASTM		2
Minimum gasket stress "y Stress" ASTM	psi	2800



**PTFE gasket material** ■ structured PTFE sheets ■ multidirectionally exp. PTFE sheets ■  
 multidirectionally exp. PTFE tapes ■ monodirectionally exp. PTFE tapes ■ **Braided gland packings**  
 ■ Carbon / Graphite packings ■ PTFE packings ■ PTFE / Aramid packings ■ Aramid packings ■  
 Glass packings ■ Acrylic packings ■ Ramie packings ■ Polyimid packings ■ Novoloid packings ■  
 Nomex packings ■ Preformed packing rings ■ **Compressed fibre sheets** ■ Carbon / Graphite  
 / NBR ■ Aramid /NBR ■ Cellulose / NBR ■ **Graphite sheets** ■ Graphite sheets with plain  
 metal insert ■ Graphite sheets with tanged metal insert ■ Pure graphite sheets ■ **Gaskets** ■ PTFE  
 envelope gaskets ■ Cut gaskets ■ Gaskets with metal eyelets ■ Double jacketed gaskets ■ Spiral-  
 wound gaskets ■ Kammprofile gaskets ■ Hand- and manhole gaskets ■ Tank lid gaskets ■ Braided  
 gasket tapes ■ **Jampak** ■ Injection gun ■ Jampak injectable compounds ■ Seal-Cage-System ■  
**Expansion Joints** ■ Metallic and Non-Metallic Expansion Joints ■ **Accessories** ■ Various packing  
 cutters ■ Packing extractors ■ Circular gasket cutter ■ **and many more...**

[www.teadit.eu](http://www.teadit.eu)

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