



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.com>

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.

- 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 5 177.1550, 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
Gasket factors acc. DIN28090-2		
Compression (room temperature) εKSW	[%]	35 - 40
Creep relaxation (room temperature) εKRW	[%]	>3
Compression (elevated temperature) εWSW	[%]	<15
Gasket factors acc. ASTM		
Compressibility ASTM F 36M (34,5 MPa)	[%]	>45
Recovery ASTM F 36M (34,5 MPa)	[%]	>10
Creep ASTM F 38 (100 °C)	[%]	≤22
Other Properties		
Residual stress DIN 52913	MPa	>18
Leakage rate TA Luft / VDI 2240	mbar·l/(s·m)	8,3*10 ⁻⁷
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

Tests:

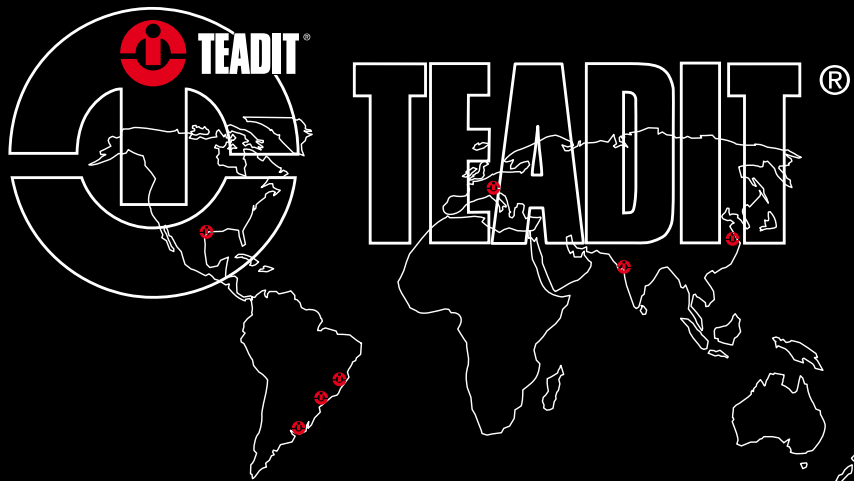
BAM

Approvals:

TA-Luft, FDA, WRAS, USP Class VI, DVGW, Blow-out VDI 2200, NSF/ANSI/CAN 61*, EC 1935/2004, EU 10/2011, EN 13555

*Only products bearing the NSF Mark on the product, product packaging, and/or documentation shipped with the product are certified.

TEADIT® International Produktions GmbH,
 Europastraße 12 - 6322 Kirchbühl/Austria
 Tel.: +43 5332 74000, Fax: +43 5332 74000-120,
austria@teadit.com



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.com



TEADIT® International Produktions GmbH
 Europastraße 12, 6322 Kirchbichl, Tirol/Austria
 Tel.: +43 5332 74000, austria@teadit.com

Houston (USA), Itatiba (Brazil), Campinas (Brazil),
 Buenos Aires (Argentina), Shanghai (China), Vadodara (India)

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