GORE® Sealant Technologies
Flyer

Endorsed by De Dietrich

GORE® GASKET TAPE SERIES 1000

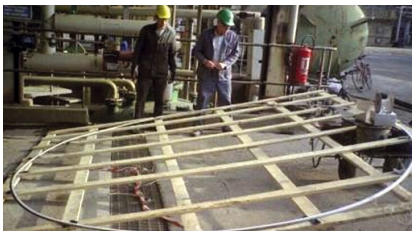
Contain aggressive media, protect glass-lined steel equipment, reduce emissions

Glass-lined steel sealing challenges

Glass-lined steel equipment is used by chemical processors to deal with aggressive media under demanding conditions. Yet the inherent demands of such systems — high temperatures, alternating system pressures, limited gasket loads and deviation of sealing surfaces — can make it challenging to maintain a tight, lasting seal.

While common Polytetrafluoroethylene (PTFE) material offers good chemical resistance, it does not readily conform to flange surface deviations, nor does it resist creep particularly well under low gasket loads. Incorporating compressible materials or fillers into common envelope gaskets or filled PTFE gaskets, offers only a partial solution.

Together, improving life



Sealing challenges are even greater when gaskets for large flanges (≥ DN 600/ASME 24") are fabricated offsite. This often results in long lead times, as well as shipping, handling and inventory challenges. These, along with time-consuming and complex installation procedures, can complicate turnarounds or delay start-ups.

Consequences of seal failure

Sealing with common envelope, filled PTFE or large prefabricated gaskets can be challenging — especially if there is inconsistent quality across different gasket brands or product lines. This may lead to premature gasket failure, with consequences that range from problematic to catastrophic, including:

- Leakage/emissions
- Equipment corrosion/damage
- Production downtime
- Cost increase
- Risks to personnel safety

Common envelope gaskets

GORE® Gasket Tape Series 1000 addresses all the challenges of reliably sealing large glass-lined steel flanges.

Made of 100% expanded PTFE (ePTFE), this highly conformable tape is chemically inert, and highly resistant to creep, cold flow and clamp-force loss. Its proprietary barrier core maintains an extra tight seal even at low loads.

Endorsed by De Dietrich, a leading manufacturer of glass-lined steel equipment, Series 1000 is optimized for processes utilizing highly aggressive media, as in chemical processing (e.g. specialty chemicals, agricultural products, polymers), mining and minerals. Series 1000 is designed for use in large (≥ DN 600/ASME 24") or non-standard flanges typical of columns, mixer vessels, reactors, storage and receiver tanks.

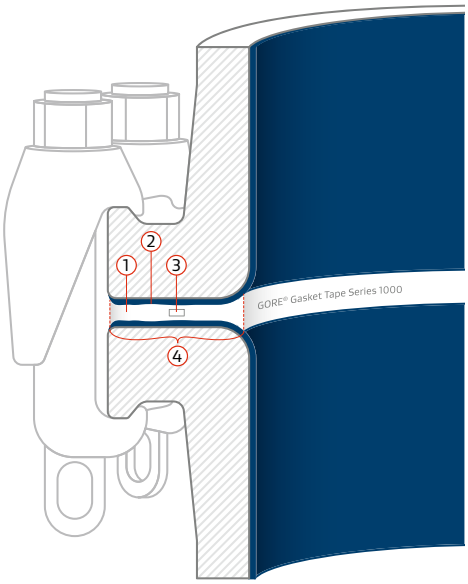
GORE® Gasket Tape Series 1000

① Highly creep resistant, to maintain gasket load

② Highly conformable, to seal surface deviations

③ Barrier core for extra tightness at low loads

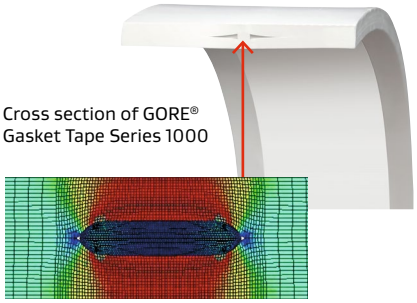
④ Chemically-inert 100% ePTFE protects full width of flange



A higher-performance sealing solution

Unique barrier core technology

- Barrier core engineered to amplify the available load.
- Seals more than 10 times tighter than other ePTFE gasket tapes.



Cross section of GORE® Gasket Tape Series 1000

Finite Element Analysis (FEA) model. Red indicates optimal sealing stress.

Outstanding conformability to deviations

- Seals deviations even at low gasket stress.
- Easily passes the bubble test, for trouble-free mechanical completion (MC) or start-up.

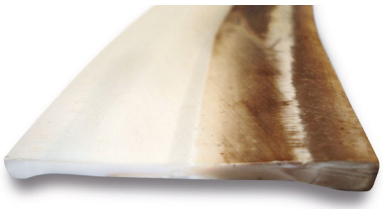
Optimal form for easy handling

- Gasket can be customized on-site.
- No fabrication lead-time required.
- Convenient spool format simplifies and speeds handling & transport.
- Adhesive backing enables easy installation in ambient temperatures from 2–50 °C (36–122 °F).
- Faster, less complicated shimming tape technique for larger deviations.
- Reduces inventory costs.

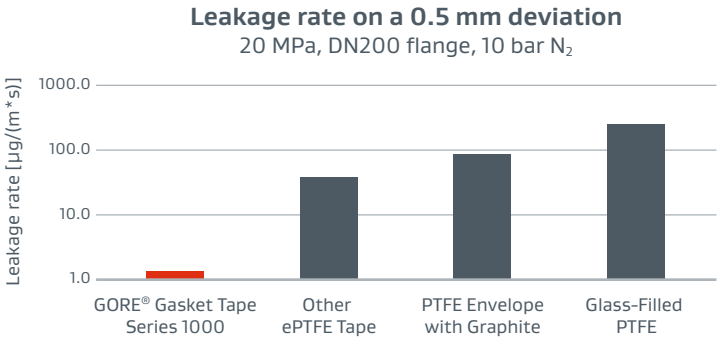
Installation temperature window that is effective from hot summer conditions to almost freezing surface temperature.

Reliable and long-term seal

- Barrier core creates a tight seal that impedes even highly-permeating media.
- Provides chemical protection across the full flange width (100% ePTFE).
- Tape is engineered to resist creep and clamp-force loss.
- Allows full use of specification range of the glass-lined steel equipment.
- Enables longer maintenance cycles, as demanded by leading chemical producers.



Cross section of GORE® Gasket Tape Series 1000 after service in challenging process conditions



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