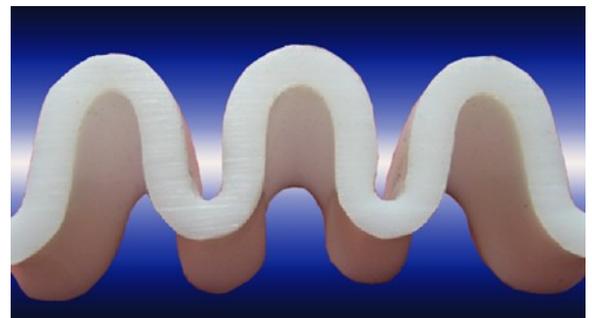
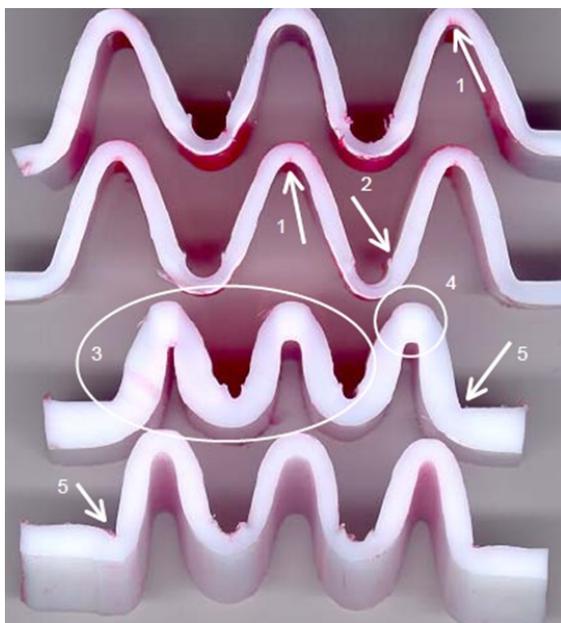


GAB HX Type PTFE Bellows in Compliance with GAB Works Standard 1070/1270

Technical Information

GAB HX type PTFE bellows in compliance with Works Standard 1070 / 1270 follow the design, manufacturing and testing guidelines published by main players of the German chemical industry („Arbeitskreis PTFE-Kompensatoren der chemischen Industrie“).

Its design and manufacturing technology ensures a heavy and uniform wall thickness of the PTFE liner, even at the flange and root ring areas. Moreover, the liner is free from defects (e.g. sharp bends, fissures, pits) that could potentially impact strength and operational safety negatively.



PTFE liner cross section of a GAB HX bellow

*Cross section of PTFE liners from different bellows manufacturers (incl. a mark-up of critical defects)
(Source: BAYER AG, works standard WN9090)*

GAB HX technology ensures:

- lower permeation rates
- less root ring corrosion
- better mechanical performance
- longer lifetime
- safe operation

The outstanding quality of GAB HX PTFE bellows has been proven by numerous challenging tests and quality checks:

- A 1-year long term test (based on chemical industry guidelines as per above) has been carried out to ensure safety across the life cycle (at TÜV Süd, Frankfurt, Germany).
- Bellows underwent pressure increase tests at 100°, 150° and 200°C (at TÜV Süd, Frankfurt, Germany).
- All bellows have undergone bursting pressure tests. Based on these tests the design safety factors have been set to 6 (up to DN150) and 4 (DN200 and larger).

The temperature / pressure data in GAB works standard WS 1070 /1270 is based on these tests.

Statistical inspection has been used to verify the data above, and all bellows are also subject to a final pressure test at 1.5 x max. operating pressure (100% testing).

