

PEREL® - SEAL FOR TECHNICAL GLASS

**Permanent elastic
PTFE seal for the sure
connection of glass flanges on
enamelled steel and other
materials**

Pilot Plant with kettle
of enamelled steel,
PEREL® seal and
glass construction

Signs:

Clean and lasting connections thanks to long-term elasticity of the PEREL® seal.



Operational areas:

In the process technology of the chemical and pharmaceutical industry as well as in related areas.

The best compensation property from rough or rippled surfaces, plan divergences with spoilt flanges, variances in the axis and skew positions.

Ability to work under pressure:

The long-term elasticity of the Perel® seal allows the application under demanding operating conditions, like they seem with aggressive chemicals, frequent temperature changes or in uses with repeated opening and fastenings.

Unrestricted shelf life:

The seal does not harden and is defeated by no ageing process

Suitable for the most different material combinations such as steel email / glass, steel email / steel email, steel email / graphite, glass / glass, rust-proof steel / glass, rustproof steel / Rustproof steel and connections with synthetic-coated parts (PTFE, PVDF or Halar).

Technical data:

seal cover: TFM PTFE

soft material insert: elastic fiberglass

core: PTFE

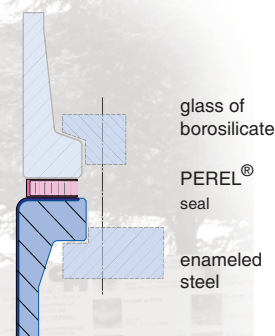
temperature area: -20°C to 220°C

Pressure: Vacuum up to 4 bar (respectively according to the maximum pressure of the glass components)

Resistant with all media (ph 0-14) according to the TFM cover and the fiberglass PTFE insert.

Sealing parameters: Q_{min} : 0.5 MPa Q_{SMAX} : 30 MPa / Q_{CRIT} 50 MPa

PEREL®
seal
EG



PEREL® glass faser fabric
for the soft material insert



phone no.
++49(0) 7157 560 0
Telefax no.
++49(0) 7157 560 200

www.heckerwerke.de
mail@heckerwerke.de

HECKER WERKE GmbH
Arthur-Hecker-Str. 1
D - 71093 Weil im Schönbuch

Construction principle of the permanent-elastic PEREL® seal:

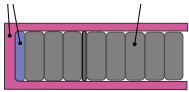
Chip-taking off made cover from TFM PTFE. The permanent-elastic and resistant to corrosion seal insert exists of PTFE impregnated fiberglass fabric. The elastic qualities of the three-dimensional lying fiberglasses cause the elasticity of the PEREL® seal. The special seal construction guarantees a higher surface pressure in the area of the inner rim. A diffusion barrier prevents the penetration of products in the seal. The insert is protected with slugfest glass faser bandages. The rustproof fiberglass insert has good emergency sealing qualities, e.g., by damage of the cover. The product, the production kind and the trade name are a property of the Gommec S.A., switzerland.

Offered Perel®- flat and collar seals for Schott and QVF glass:

PEREL® Flat Seal Type EG and EG-E

TFM PTFE-cover
with
diffusion barrier

Elastic PTFE-
Glass faser fabrics



Perel® Seal Type EG DN 25 up to 150 Schott glass

balances of unevennesses up to 1 mm

Label	dimensions d x D x s
EG 25	27 x 43 x 5/4 mm*
EG 40	42 x 61 x 5/4 mm*
EG 50	52 x 76 x 5/4 mm*
EG 80	83 x 110 x 5/4 mm*
EG 100	102 x 130 x 5/4 mm*
EG 150	155 x 184 x 5/4 mm*

Perel® Seal Type EG DN 200 up to 600 Schott / QVF

balances of unevennesses up to 1,5 mm

Label	dimensions d x D x s
EG 200	204 x 234 x 6/5 mm*
EG 300	306 x 338 x 6/5 mm*
EG 400	420 x 466 x 6/5 mm*
EG 450	470 x 528 x 6/5 mm*
EG 600	634 x 684 x 6/5 mm*

Perel® Seal Type EG-E DN 200 up to 600 Schott / QVF

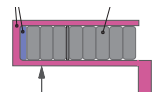
balances of unevennesses up to 2,5 mm

Label	dimensions d x D x s
EG-E 300	306 x 338 x 8/6 mm*
EG-E 400	420 x 466 x 8/6 mm*
EG-E 450	470 x 528 x 8/6 mm*
EG-E 600	634 x 684 x 8/6 mm*

PEREL® collar seal Type PGT-X

TFM PTFE-cover
with
diffusion barrier

Elastic PTFE-
Glass faser fabrics



for Schott
RE 3 smooth, polished

Perel® Seal Type PGT-X DN 25 up to 300 Schott glass

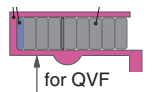
balances of unevennesses up to 1mm ***

Label	dimensions d x D x s
PGT-X 25	27 x 43 x 5/4 mm*
PGT-X 40	42 x 61 x 5/4 mm*
PGT-X 50	52 x 76 x 5/4 mm*
PGT-X 80	83 x 110 x 5/4 mm*
PGT-X 100	102 x 130 x 5/4 mm*
PGT-X 150	155 x 184 x 5/4 mm*
PGT-X 200	204 x 233 x 6/5 mm*
PGT-X 300	306 x 338 x 6/5 mm*

PEREL® collar seal Type PGT-X-Q

TFM PTFE-cover
with
diffusion barrier

Elastic PTFE-
Glass faser fabrics



for QVF
security flange
with grooves

Perel® Seal PGT-X-Q DN 15 up to 300 QVF glass

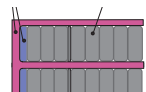
balances of unevennesses up to 1mm ***

Label	dimensions d x D x s
PGT-X-Q 15	18 x 30 x 5/4 mm*
PGT-X-Q 25	27 x 43 x 5/4 mm*
PGT-X-Q 40	41 x 58 x 5/4 mm*
PGT-X-Q 50	51 x 71 x 5/4 mm*
PGT-X-Q 80	77 x 100 x 5/4 mm*
PGT-X-Q 100	108 x 133 x 5/4 mm*
PGT-X-Q 150	155 x 184 x 5/4 mm*
PGT-X-Q 200	204 x 233 x 6/5 mm*
PGT-X-Q 300	306 x 338 x 6/5 mm*

PEREL® Flat seal Type DEG

TFM PTFE-cover
with
diffusion barrier

Elastic PTFE-
Glass faser fabrics



Perel® Seal Type DEG DN 600 up to 1000 Schott / QVF

balances of unevennesses up to 3,5 mm

Label	dimensions d x D x s
DEG 800	835 x 915 x 11/8 mm*
DEG 1000	1037 x 1088 x 11/8 mm*



Installation tips:

Installation tips: Seal cleanly and drily insert, centre.

Pull screws steadily about the cross.

Provide screws with suitable compression springs, the spring tension has to compensate a possible overpressure. The seal surfaces must be sharpened fire-polished or very smooth and may show no radial running grooves.

Remarks:

* Seal thickness of the cover (unpressed to 2 mm thicker) / installation height pressed (approximate values)

** Inside x external diameter x thickness (mass without seal collar)

*** DN 200 and 300: balances of unevennesses up to 1.5 mm