

HG

**CHEMICAL INDUSTRY STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

HG/T 20628-2009

**PTFE envelope gaskets for use with steel pipe flanges (Class
designated)**

钢制管法兰聚四氟乙烯包覆垫片 (Class 系列)

(English Translation)

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1. Scope

1 Scope

This standard specifies the type, dimension, technical requirements and marking of PTFE envelope gaskets for use with steel pipe flanges (Class designated).

This standard is applicable to the PTFE envelope gaskets for use with raised-face steel pipe flanges that the nominal pressures are Class150 (PN20) and Class300 (PN50) and the working temperature is less than or equal to 150°C (specified in HG/T 20615).

Note: As for the use of the gaskets in which contain the material of asbestos, it shall meet the requirements of the relevant laws and regulations. If the aforesaid gaskets are used, the protective measures shall be adopted to prevent man from damaging.

2 Normative references

The following provisions contained in the following standards are turned into the provisions of this national standard by being referred in this national standard. For date reference, the subsequent amendments to (excluding amending error in the text) or revisions of, any of these publications do not apply. And parties to agreements based on this standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. For undated references, its latest edition referred to applies.

GB/T 3985 "Compressed asbestos fiber jointing" GB/T 13404 "PTFE envelope gaskets for use with pipe flange" HG/T 20615 "Steel Pipe Flange (Class Designated)" HG/T 20635 "Specification for Selection of Steel Pipe Flange, Gaskets and Bolting (Class designated)" QB/T 3625 "PTFE Sheet" QB/T 3626 "PTFE Steel Bar"

3 Gasket type and dimension

3.0.1

According to the processing method, the gasket type is classified into section type, machine work type and fold type; and the types are expressed respectively with A type, B type and C type (see Figure 3.0.1). A type and B type are applicable to the occasion that the nominal dimension is less than or equal to DN500; and B type of the two is recommended. C type is applicable to the occasion that the nominal dimension larger than or equal to DN350.

3.0.2 Gasket Dimension

1 Gasket dimensions of A type, B type and C type shall meet the requirements of Table 3.0.2-1 and Table 3.0.2-2.

2 The gasket thickness T in Table 3.0.2-1 and Table 3.0.2-2 is recommended thickness.

The other gasket thickness may be determined by the user, but it shall be indicated at the Table 3.0.2-2 PTFE Envelope Gaskets Dimension (C type) (mm)

Nominal dimension

Coating inside

diameter DI

Coating outside

diameter D3min

Outside diameter of the gasket D4 Gasket thickness T DN NPS Nominal pressure Class
350 14 356 412 449.5 484.5 400 16 406 469 513.0 538.5 450 18 457 528 548.0 595.5 500
20 508 578 605.0 653.0 600 24 610 679 716.5 774.0 Note. The gasket thickness T in the
table is recommended thickness. The other gasket thickness may be determined by the
user, but it shall be indicated at the order time.

4.0.1 PTFE coating material shall meet the requirements of FSB-2 which is specified in QB/T

3625 and the requirements of QB/T 3626.

4.0.2 Embedding layer or core material usually are paronite or non asbestos fiber rubber sheet.

If it is required by the user, the other proper material may be adopted, but it shall be indicated in the order.

4.0.3 Dimension tolerance of gasket internal diameter D1 and outside diameter D4 shall meet

the requirements of Table 4.0.3. The tolerance of coating thickness is $\pm 0.05\text{mm}$ and the tolerance of gasket thickness is $\pm 0.25\text{mm}$.

4.0.4 Coating surface shall be flat and smooth without buckling deformation and the thickness

shall be even. There shall be no such defects as pore and slag inclusion.

4.0.5 Compression ratio, rebound rate, stress relaxation ratio and sealing leak ratio of the gasket shall meet the requirements of GB/T 13404.

Table 4.0.3 Dimension Tolerance of Inside Diameter D1 and Outside Diameter D4 of the Gasket (mm)

Nominal dimension $\leq \text{DN}300$ $\geq \text{DN}350$ Coating inside diameter D1 ± 1.5 ± 3.0 Outside diameter of the gasket D4 -1.5 -3.0

5 Marking and Packaging

5.0.1

The gasket shall be packaged respectively according to the type, specification and material. There shall be production quality test conformity certificate at the delivery time. The specified contents in Article 5.0.2 shall be indicated with label on the gasket.

5.0.2 Marking Illustration

Illustration 1. As for the machine-work-type PTFE envelope gasket in thickness (T) of 3mm for use with steel pipe flange that the nominal dimension is DN100 and the nominal pressure is Class300, the core material is XB450 paronite; and the marking is.

HG/T 20628 PTFE envelope gasket (XB450) B 100-300 Illustration 2. As for the section-type PTFE envelope gaskets in the thickness (T) of 2.5mm for use with steel pipe flange that the nominal dimension is DN200 and the nominal pressure is Class150, materials of the embedding layer are chemigum sheet; and the marking is.

HG/T 20628 PTFE envelope gasket (NBR) A 200-150 Illustration 3. As for the fold-type PTFE envelope gaskets in the thickness (T) of 4mm for use with steel pipe flange that the nominal dimension is DN600 and the nominal pressure is Class150, materials of the embedding layer are non asbestos fiber rubber sheet; and the marking is.

HG/T 20628 PTFE envelope gasket (AAA/BBB) C 600-150 Note. When the specific manufacturer (AAA) and grade (BBB) are selected by the user, the attaching label shall be marked (AAA/BBB) on the gasket marks.