

HG

CHEMICAL INDUSTRY STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

HG/T 20631-2009

**Spiral wound gaskets for use with steel pipe flanges (Class
designated)**

钢制管法兰缠绕式垫片 (Class 系列)

(English Translation)

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Table of Contents

- 1. Scope
- 2. Normative references
- 3. General provisions
- 4. Dimension
- 5. Technical requirements
- 6. Inspection
- 7. Marking and labeling
 - 7.1 Marking and illustration
 - 7.2 Labeling

Appendix A (Informative) the Applied Minimum Pipe Wall Thickness of the Inside Diameter of Internal Ring for this Standard

- 1. Scope

1 Scope

This standard specifies the type, dimension, technical requirements and marking of spiral-wound gasket for use with steel pipe flanges (Class designated).

This standard is applicable to the spiral wound gaskets for use with steel pipe flanges whose nominal pressures are from Class150 (PN20)-Class600 (PN110) which are specified in HG/T 20615 and HG/T 20623.

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 912 "Hot-rolled Quality Carbon Structural Steel Sheets and Strips" GB/T 3280 "Cold Rolled Stainless Steel Plate Sheet and Strip" GB/T 4237 "Hot Rolled Stainless Steel Plate Sheet and Strip" GB/T11253 "Cold-rolled Quality Carbon Structural Steel Sheets and Strips" HG/T 20615 "Steel Pipe Flange (Class Designated)" HG/T 20623 "Major Diameter Steel Pipe Flange (Class Designated)" HG/T 20635 "Specification for Selection of Steel

Pipe Flange, Gaskets and Bolting (Class designated)" JB/T 7758.2 "Specifications of Flexible Graphite Sheets" JC/T 69 "Compressed Asbestos Sheet" QB/T 3628 "PTFE Raw Material Strip for use with Screw Thread Sealing"

3 General provisions

3.0.1

The type, code name, sectional form and proper type of flange sealing surface of the gasket shall meet the requirements of Table 3.0.1.

Melting point (°C) - - 327±10

3 Inner ring material shall be of the same or better than corrosion-resisting property as the metal strip material. Stainless steel material shall meet the requirements of GB/T 3280 or GB/T 4237. Unless otherwise stated, carbon steel may be adopted for the centering ring.

Carbon steel shall meet the requirements of GB/T 11253 or GB/T 912 and shall be painted, electroplated or other surface treatment.

4 If other metal strip and filling material are adopted, this shall be indicated at the order

time.

3.0.5 Except for fundamental form, the inner ring shall be adopted for the gasket that the Class600, Class900, Class1500, Class2500 as well as PTFE are taken as filling material.

4. Dimension

4.0.1 Gasket dimension shall meet the requirements of Figure 4.0.1 and Table 4.0.1-1 - Table

4.0.1-4.

4.0.2 Thickness of spirally wound gasket in Table 4.0.1-1 - Table 4.0.1-4 is the height

between the metal strips of the spirally wound part, but it does not contain the thickness of the filling material that part is tower than the metal strip.

Type A

Type B

Type C

Type D

Figure 4.0.1 Dimension of the Metal Spiral Wound Gasket

(Continued) (mm)

Nominal

dimension

Nominal pressure Class (PN) Thickness of spirally wound gasket T Thickness of inner ring type and centering ring type t Class150 (PN20) Class300 (PN50) Class600 (PN110) DN NPS Inside diameter of inner ring D1 Inside diameter of the spirally wound part D2 Outside diameter of the spirally wound part D3 Outside diameter of the centering ring D4 Inside diameter of inner ring D1 Inside diameter of the spirally wound part D2 Outside diameter of the spirally wound part D3 Outside diameter of the centering ring D4 300 12 317.5 339.9 374.7 408.0 317.5 339.9 374.7 421.0 317.5 327.2 374.7 456.0 4.5 3.0 350 14 349.3 371.6 406.4 449.5 349.3 371.6 406.4 484.5 349.3 362.0 406.4 491.0 400 16 400.0 422.4 463.6 513.0 400.0 422.4 463.6 538.5 400.0 412.8 463.6 564.0 450 18 449.3 474.7 527.1 548.0 449.3 474.7 527.1 595.5 449.3 469.9 527.1 612.0 500 20 500.0 525.5 577.9 605.0 500.0 525.5 577.9 653.0 500.0 520.7 577.9 682.0 600 24 603.3 628.7 685.8 716.5 603.3 628.7 685.8 774.0 603.3 628.7 685.8 790.0 15 3/4 14.3 19.1 31.8 62.5 14.3 19.1 31.8 62.5 14.3 19.1 31.8 69.0 20 3/4 20.7 25.4 39.6 69.0 20.7 25.4 39.6 69.0 20.7 25.4 39.6 75.0 25 1 27.0 31.8 47.8 77.5 27.0 31.8 47.8 77.5 27.0 31.8 47.8 84.0 32 411 33.4 39.6 60.5 87.0 33.4 39.6 60.5 103.0 40 211 41.3 47.8 69.9 97.0 41.3 47.8 69.9 97.0 41.3 47.8 69.9 116.0 50 2 52.4 58.7 85.9 141.0 52.4 58.7 85.9 141.0 52.4 58.7 85.9 144.5 65 212 63.5 69.9 98.6 163.5 63.5 69.9 98.6 163.5 63.5 69.9 98.6 167.0 80 3 81.0 95.3 120.7 166.5 81.0 92.2 120.7 173.0 81.0 92.2 120.7 195.5

Table 4.0.1-2 Dimension of Fundamental Form (A-type) or Inner Ring (B-type) Gaskets for Use with Tongue

and Groove Face and Male-female Face Flange (mm) Nominal dimension Inside diameter of inner ring DI Spirally wound part Thickness of spirally wound gasket Thickness of the inner ring A B DN NPS Class300-Class2500 (PN50-PN420) C1ass300-C1ass1500 (PN50-PN260) C1ass2500 (PN420) Inside diameter D2 Outside diameter D3 Inside diameter D2 Outside diameter D3 15 21 14.3 25.4 34.9 25.4 34.9 20.6 34.9 3.2 2.0 20 43 20.6 33.3 42.9 33.3 42.9 27.0 42.9 25 1 27.0 38.1 50.8 38.1 50.8 31.8 50.8 32 411 34.9 47.6 63.5 47.6 63.5 41.3 63.5 40 211 41.3 54.0 73.0 54.0 73.0 47.6 73.0 50 2 52.4 73.0 92.1 73.0 92.1 60.3 92.1 65 212 63.5 85.7 104.8 85.7 104.8 76.2 104.8 80 3 77.8 108.0 127.0 108.0 127.0 95.3 127.0 100 4 103.2 131.8 157.2 131.8 157.2 120.7 157.2 125 5 128.6 160.3 185.7 160.3 185.7 146.1 185.7 150 6 154.0 190.5 215.9 190.5 215.9 171.5 215.9 200 8 203.2 238.1 269.9 238.1 269.9 222.3 269.9 250 10 254.0 285.8 323.9 285.8 323.9 273.1 323.9 300 12 303.2 342.9 381.0 342.9 381.0

330.2 381.0 350 14 342.9 374.7 412.8 374.7 412.8 - - 400 16 393.7 425.5 469.9 425.5
 469.9 - - 450 18 444.5 489.0 533.4 489.0 533.4 - - 500 20 495.3 533.4 584.2 533.4 584.2 -
 - 600 24 596.9 641.4 692.2 641.4 692.2 - - (Continued) (mm) Nominal dimension Class150
 (PN20) Class300 (PN50) Thickness of spirally wound gasket T Thickness of inner ring and
 locating ring t DN NPS Inside diameter of inner ring DI Inside diameter of the spirally wound
 part D2 Outside diameter of the spirally wound part D3 Outside diameter of the locating
 ring D4 Inside diameter of inner ring DI Inside diameter of the spirally wound part D2
 Outside diameter of the spirally wound part D3 Outside diameter of the locating ring D4 950
 38 958.8 977.9 1019.2 1110 952.5 977.9 1016.0 1053 4.5 3.0 1000 40 1009.6 1028.7
 1070.0 1161 1003.3 1022.4 1070.0 1113 1050 42 1060.4 1079.5 1124.0 1218 1054.1
 1073.2 1120.8 1165 1100 44 1111.2 1130.3 1177.9 1275 1104.9 1130.3 1181.1 1219 1150
 46 1162.0 1181.1 1228.7 1326 1152.7 1177.9 1228.7 1273 1200 48 1212.8 1231.9 1279.5
 1383 1209.8 1235.1 1285.9 1324 1250 50 1263.6 1282.7 1333.5 1435 1244.6 1295.4
 1346.2 1377 1300 52 1314.4 1333.5 1384.3 1492 1320.8 1346.2 1397.0 1428 1350 54
 1358.9 1384.3 1435.1 1549 1352.6 1403.4 1454.2 1493 1400 56 1409.7 1435.1 1485.9
 1606 1403.4 1454.2 1505.0 1544 1450 58 1460.5 1485.9 1536.7 1663 1447.8 1511.3
 1562.1 1595 1500 60 1511.3 1536.7 1587.5 1714 1524.0 1562.1 1612.9 1646 650 26
 647.7 685.8 736.6 866 666.8 685.8 736.6 883 700 28 698.5 736.6 787.4 913 711.2 736.6
 787.4 946 750 30 755.6 793.8 844.6 970 774.7 793.8 844.6 1010 800 32 812.8 850.9
 901.7 1024 812.8 850.9 901.7 1074 850 34 863.6 901.7 952.5 1074 863.6 901.7 952.5
 1136 900 36 917.7 955.7 1006.5 1130 920.8 958.9 1009.7 1199 950 38 952.5 990.6
 1041.4 1106 1009.6 1035.1 1085.8 1199 1000 40 1009.6 1047.8 1098.6 1157 1060.4
 1098.6 1149.4 1250 1050 42 1066.8 1104.9 1155.7 1219 - - - - 1100 44 1111.2 1162.1
 1212.9 1270 - - - - 1150 46 1162.0 1212...